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Preventive Behaviors Among Army and Navy Women

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#### 13. ABSTRACT (Maximum 200 Words)

The purpose of this report is to report the results of the fourth year of a study to investigate and address enlisted Army and Navy women's needs for basic gynecological and reproductive health education in order to enhance military readiness and general well-being. In the first phase of the study, a needs assessment was begun in which the methods included: 1) a mail survey of knowledge, attitudes, and practices (KAP) from a random sample of Army and Navy clinicians and chiefs of military medical departments; 2) focus groups with enlisted Army and Navy women and with their health care providers; and 3) a secondary analysis of a national survey of military personnel health related behaviors. Based on the results of these needs assessment data, we have determined implications for enlisted women's reproductive health. These data were used in the fourth year to design and begin development of a culturally sensitive, multimedia CD-ROM and accompanying materials. This intervention will be tested in military medical clinics in a fifth project year.

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#### I. Introduction

The project "CD-ROM Technology to Increase Appropriate Self-Care and Preventive Behaviors Among Army and Navy Women" was initiated as a way to study and address the reproductive health education needs of enlisted Army and Navy women. Not only is the ability of each female soldier to protect and control her reproductive health essential to military readiness, it is important for these women's quality of life. The purpose of the study is to investigate enlisted women's needs for basic gynecological and reproductive health education, from the perspective of military health care providers and enlisted women themselves. Based on the results of the needs assessment, a culturally sensitive, multimedia CD-ROM and accompanying materials will be developed. This intervention will then be tested in military medical clinics.

This report describes the fourth year of operation of the project, which began in October 1999. The project was originally a four-year study with three distinct phases: a needs assessment phase, a design phase, and an efficacy study phase. The first year was to include the needs assessment phase and the beginning of the application design. Due to continued delays in questionnaire design and human subjects approval that continued past the first year, we were only ready to design and develop the application in the fourth year. This report will summarize the design and development process and our future task timeline for testing the intervention in an extension year.

## II. Body: Research Accomplishment

The experimental methods and procedures reported here represent a description of the instructional design process we used to develop the tailored interactive intervention. It will also describe a revision in the original scope of work for the efficacy test—which has been approved by the United States Army Medical Research and Materiel Command Science Officer—and the initial activities to plan for the efficacy test.

### A. Experimental Methods and Procedures

The purpose of the study was to investigate enlisted women's needs for basic gynecological and reproductive health education, as evidenced by a needs assessment process conducted with military health care providers and enlisted women. Based on the results of the needs assessment, a culturally sensitive, multimedia CD-ROM and accompanying materials is being developed, which will be tested in military medical clinics. The technical objectives were as follows:

- 1) To assess the most pressing reproductive and gynecological self-care education needs of enlisted women on base and in the field;
- 2) To assess the range of current health education efforts for enlisted women;
- To enhance enlisted women's self-care and care-seeking knowledge and practices through development and implementation of a culturally sensitive, multimedia educational intervention and accompanying field pocket guide at medical clinics.

The first two objectives were addressed in the first three years of the study. Needs assessment activities involved 3 data gathering activities:

- 1) A secondary analysis of the 1995 Department of Defense Survey of Health Related Behaviors Among Military Personnel to determine to the effect of health-related attitudes and behaviors on enlisted women's history of sexually transmitted diseases (STDs), Pap test screening, and pregnancy;
- 2) Needs assessment focus groups with enlisted women in the Army and Navy (N=40) and military health care providers (N=20); and
- 3) Needs assessment mail surveys conducted with nationally representative samples of military health care providers (n=260), and chairpersons of military base OB/GYN services (N=160).

The third objective was addressed in the fourth year of the project as we began the development of the multimedia educational intervention. We also began to prepare for the efficacy test. The sections below describe the procedures employed in these activities. The detailed findings can be found in the appendices.

# 1. Educational Intervention Development

### Design Document

Data collected during the needs assessment process were analyzed and synthesized into a design document that outlines the specific content and features to be included in the multimedia program. The design document was created by a design team that included: (1) an expert in health communications technology (R. Gold); (2) an expert in instructional design and women's health (N. Atkinson); (3) expert in military women's issues (E. Lewis); (4) a graphic artist; and (5) a video producer with experience in military training and women's health projects (D. Hopwood).

The process of developing the design document involved a series of meetings of several configurations of the above design team, with Dr. Atkinson taking the lead role. In addition, Dr. Ann Taubenheim provided substantial instructional design support to Dr. Atkinson in the first half of this project year before leaving the project.

The design document serves as a guide to the programmer, artist, and video producer and specifies the overall sequence and content of the program, including any video, audio, or animation components, as well as sample screen designs and initial flow charts. The process involved the following phases:

- a. Development of content outline. This was a draft of the universe of information that might be included in a women's health application focused on enlisted women's health needs as indicated by the Defense Women's Health Initiative and the needs assessment activities.
- b. Development of key messages. Key messages were drafted to guide the focus and the development of the activities, feedback to users, and video script. Given that people

- tend to remember very little of educational content, a focus on the key messages ensures that the user will get a consistent message and tone throughout the application.
- c. Development of goals and objectives. The goals and objectives also focus the content and instruction in the intervention as well as its evaluation.
- d. Development of overall flowchart and storyboards. The overall flowchart illustrates the possible paths the user may take in the interactive intervention. It also outlines where the user accesses the different learning activities and how the user enters and exits the program.
- e. Development of activity-level storyboards. Once the overall structure is determined, specific learning activities and their content and use are illustrated thoroughly in detailed storyboards. These guide programming and graphic art development.
- f. Development of video and audio scripts. Complementary video and audio add interest to an interactive intervention. Using the findings of the needs assessment, the key messages, and the goals and objectives as a guide, the video producer prepared a video script that will guide video production.

See Appendix A for the Design Document that resulted from these deliberations. The design document was submitted to several advisory panel members for approval prior to proceeding with program development.

### 2. Efficacy Test

#### Revision in Scope of Work

Early in the project when the needs assessment was taking longer than originally planned, we discussed the need for a modification in the scope of work with the contract officer. At that time, the thought was that a no-cost extension would be the nature of the modification. However, the time frame of the contract cannot be extended beyond August 2001. Therefore, the following change in the efficacy test was proposed and accepted by Kathryn Dunn, Contract Specialist, and Dr. Patricia Modrow, Deputy Director for Grants Management:

**Original Plan:** The intervention will be tested at the medical facilities of a Navy and an Army installation using a randomized pretest/posttest control group design that will allow us to examine the outcome measures by intervention and by service. The experimental group will use the intervention and the control group will receive usual care. Subjects will complete a knowledge-attitudes-practices (KAP) survey pre-intervention, post-intervention, 6 months post-intervention, and 12 months post-intervention.

	EXPERIMENTAL	CONTROL
ARMY	$\mathbf{R} \mathbf{Y}_0 \mathbf{X} \mathbf{Y}_1 \mathbf{Y}_2 \mathbf{Y}_3$	$\mathbf{R} \ \mathbf{Y_0} \ \sim \mathbf{X} \ \mathbf{Y_1} \ \mathbf{Y_2} \ \mathbf{Y_3}$
NAVY	$\mathbf{R} \ \mathbf{Y}_0 \ \mathbf{X} \ \mathbf{Y}_1 \ \mathbf{Y}_2 \ \mathbf{Y}_3$	$\mathbf{R} \mathbf{Y}_0 \sim \mathbf{X} \mathbf{Y}_1 \mathbf{Y}_2 \mathbf{Y}_3$

X=intervention,  $\sim$ X=no intervention,  $Y_0$ =pre-measure,  $Y_{1,2,3}$ =post-measure

Alternative Plan: The intervention will be tested at the medical facilities where military women, regardless of service, are likely to go (Walter Reed, National Naval Hospital, and Malcolm Grow). However, equivalent numbers of women in the Army, Navy, and Air Force will be recruited for participation in the study. Women will be randomized into experimental and control conditions upon arrival at their annual examination, which will allow us to examine the outcome measures by intervention. The experimental group will use the intervention and the control group will receive usual care. Subjects will complete a knowledge-attitudes-practices (KAP) survey pre-intervention and post-intervention, and data collection will take place for approximately 6 months.

EXPERIMENTAL	CONTROL
$\mathbf{R} \mathbf{Y}_0 \mathbf{X} \mathbf{Y}_1$	$R Y_0 \sim X Y_1$
X=intervention, ~X=no intervention	, $Y_0$ =pre-measure, $Y_1$ =post-measure

Rationale: The needs assessment phase of the project took an extended amount of time due to human subject clearance procedures, survey clearance procedures, change in work scope, and added time needed to obtain agreements at specific installations for data collection (documented in annual reports 1, 2, and 3). Once the intervention has been developed, the extension in the original time period only allows for an additional 6 months. The revised efficacy test is needed to allow for this shortened time frame. In addition, this strategy avoids problems with subject follow-up due to reassignment, assignment to a temporary duty station, deployment, or separation from the service.

### Clarification of Human Subjects Issues and Procedures

At the time that the revised scope of work was in review, we began to clarify the need for IRB review of the efficacy test portion of the study. Because a revision in the needs assessment appeared to show that the efficacy test was no longer part of the overall protocol, the human use office seemed to have approved the entire protocol. However, we learned that the efficacy test was considered a new protocol, and it needed IRB review. Given the timeframe issues mentioned above, we will seek direct IRB review through the Human Use and Regulatory Affairs Office at Fort Detrick, Maryland. Once the protocol is approved, we will submit it to the IRBs of the University of Maryland, Macro International Inc., Uniformed Services University of the Health Sciences, and the medical facilities that participate in the efficacy test.

#### **Instrument Development**

In the original needs assessment, we planned to conduct a cross sectional survey of enlisted women's knowledge, attitudes, and practices pertinent to their reproductive health and health education needs. Health Affairs did not approve the survey and recommended that we do a secondary analysis of an existing national health behavior survey, the 1995 Department of Defense Survey of Health Related Behaviors Among Military Personnel. Considerable work had been done on the needs assessment

survey including expert panel involvement in the drafting and review of the instrument as well as a pilot test of the instrument with 9 enlisted women. This survey formed the basis of the questionnaire that will be used in the efficacy test to measure pretest and posttest knowledge, attitudes, and practices. See Appendix B for the questionnaire.

#### **Consent Form**

In accordance with the guidelines set forth by the Human Use and Regulatory Affairs Office of the USAMRAA, we prepared a consent form for enlisted women to review and sign prior to volunteering to participate in the efficacy test. The consent form is in Appendix C.

### **Recruitment of Co-Investigators**

We are currently recruiting co-investigators at the following military medical facilities in the Washington DC area: Walter Reed Army Medical Center, National Naval Hospital, and Malcolm Grow. To inform potential co-investigators about the intervention, the study, and the role of a co-investigator, we prepared a two-page information paper and a PowerPoint presentation available to download or view on the Internet. The information paper is in Appendix D, and presentation is in Appendix E.

# **B.** Relevance to Original Objectives

The findings from the above activities relate directly to the third technical objective from original proposal related to the needs assessment:

To enhance enlisted women's self-care and care-seeking knowledge and practices through development and implementation of a culturally sensitive, multimedia educational intervention and accompanying field pocket guide at medical clinics.

The intervention development activities and the efficacy test activities directly address the original objective above. During the development, we focused on the guidance from the needs assessment to prepare an intervention that addressed women's health for enlisted female personnel. This included attention to not only information but to attitudes and capabilities that will support positive health behavior related to preventing vaginal infections, unintended pregnancy, and sexually transmitted diseases. We are taking care to prepare an intervention that is multicultural in terms of race/ethnicity and branch of service so that we take into account those cultural factors that influence our target audience. The addition of Air Force women allows the intervention to be tri-service, which is consistent with other efforts in today's military and its health care system.

The efficacy test is structured to include women from all three services. The KAP survey directly addresses the objectives that came out of the needs assessment and guided the

intervention development. Further, we have sought the active participation of coinvestigators from across the services, just as we had in the needs assessment. The involvement of these individuals as well as their patient populations will support further review, evaluation, revision, and integration of the intervention.

# C. Problems in Accomplishing Tasks

The last project year began with certain problems and ended with others that influenced our progress toward some of the tasks. These issues included staffing changes, contract revisions, and contract constraints.

At the beginning of the year, Dr. Atkinson left the employ of Macro International. Macro sought and obtained permission from the contract officer to retain her involvement in the project, but these negotiations took several months. In the meantime, Dr. Ann Taubenheim became the civilian P.I. for a few months. Upon her departure from Macro in May 2000, Macro sought and obtained permission to revert to Dr. Atkinson as the civilian P.I. In addition, the person originally proposed to program the application has since left Macro, and a new programmer had to be identified. These changes and contract revisions had some affect on the project timeline.

At the time the scope of work for the efficacy test was revised, the contract office believed that no further IRB review was needed for the project. As mentioned above, this was clarified with the Human Use and Regulatory Affairs Office. The work on IRB approval was thus delayed a few months while we were operating under the assumption that no IRB approval was necessary. Our point of contact in the Human Use and Regulatory Affairs Office, Cathy Smith, was reassigned but continued to provide assistance and support in moving forward with compliance with human subjects approval procedures. We are now working with COL Julie Zadinsky to expedite IRB review directly through the Human Use and Regulatory Affairs Office.

Early on in the needs assessment, the contract office became aware that the original timeline would need to be revised. They advised us to wait until closer to the end of the contract to address this issue. When we were ready to revise the timeline, they became aware that the nature of the funding source precluded extending the contract beyond August 2001. As a result, we had to reduce the efficacy test by removing the extended posttesting from the plan.

# III. Key Research Accomplishments

This section details Year 4 activities and results. It is not yet a final project report with a full listing of project outcomes. Table 1 lists the major activities of the third project year in terms of four tasks outlined in the original proposal.

	Table 1: Major Activities of the Fourth Project Year		
Task	Description	Months of Performance In Year 4	
5	Held preliminary design team meetings.	1-3	
5	Developed content outline, key messages	4	
5	Developed goals and objectives	5	
5	Developed basic program structure, flowchart, and storyboard	6-7	
5	Developed video script	8	
5	Finalized basic design document and submitted to advisors for review	9-10	
5	Developed storyboards for learning activities	9-11	
6	Develop multimedia CD-ROM	11-12	
9	Conduct in-house and expert review of multimedia program	10-12	
11	Revised scope of work for efficacy study.	8	
11	Began recruiting Co-Investigators at Washington DC area military medical facilities.	9-12	
11	Developed knowledge, attitudes, practices survey.	10-11	
11	Developed consent form.	11	
11	Worked with funding agency, Uniformed Services University of the Health Sciences, and the University of Maryland to finalize IRB requirements.	8-12	

### IV. Reportable Outcomes

In terms of reportable outcomes, one paper presentation and one abstract submission were the only items that apply for the third project year. No patents, licenses, informatics, funding, or other research opportunities resulted from this research.

# Presentation at 1999 APHA Annual Meeting: November 1999

A presentation of the preliminary findings from the secondary analysis was given at the annual meeting of the American Public Health Association in Chicago, Illinois, in November 1998. The presentation is in Appendix F, and the citation is as follows:

• Atkinson, N.L., L.N. English, K. Brown-Huamani, E. Lewis, and R.S. Gold, R.S. 1999. Health Education Needs of Enlisted Army and Navy Women.

# Abstract for Fifth Biennial Conference on Women in Uniform: Submitted September 2000

The following abstract was submitted for consideration for the Fifth Biennial Conference on Women in Uniform held by the Women's Research and Education Institute in Arlington, Virginia, at the Women in Military Service to American Memorial. It was accepted for presentation at a session on December 1, 2000.

 Evelyn L. Lewis and Nancy L. Atkinson. 2000. Educating Rita: Assessing the Knowledge, Attitudes, and Practices Related to the Reproductive Health of the Enlisted Female Population.

The purpose of this paper is to describe a needs assessment to determine the knowledge, attitudes and practices related to reproductive health behavior for enlisted women in the Army and Navy. A combination of qualitative and quantitative methods were used, including: 1) expert panel meeting; secondary analysis of the 1995 Department of Defense Survey of Health Related Behaviors Among Military Personnel; 2) focus groups with single and married enlisted women in the Army and Navy; 3) focus groups with military clinicians in the Army and Navy serving enlisted women; and 4) surveys conducted with clinicians (physicians and nurse practitioners) and with commanding officers of military medical services providing reproductive health care to enlisted women. The findings from this study were used to develop recommendations for health education interventions that will reduce the incidence of unintentional pregnancies, sexually transmitted diseases, and urinary tract and vaginal infections among enlisted women. The methods, findings, and recommendations will be discussed as well as their implications for military health education and health policy.

#### V. Conclusions

The work of the past year focused on intervention development. Taking the results of the qualitative and quantitative needs assessment studies, we used a design team approach to preparing a tailored, culturally-sensitive that would meet the needs of enlisted female personnel. The conclusions outline how the findings of the needs assessment have been operationalized in the development of the intervention.

### A. Intervention Development Conclusions

Our needs assessment revealed that women's health education efforts in the military are numerous but diffuse, and they have little standardization. While several military clinicians and active duty females voiced support for the development of educational materials, these materials are being developed as an isolated component rather than part of a mandatory health education program. As a result, these materials must be regarded as a resource that may be implemented in a variety of situations. We believe the intervention could present greater gains if it were made available to enlisted women in a systematic way.

The primary type of implementation—as envisioned from the beginning—is as a clinic-based intervention. Given the time constraints that may present in a clinical setting, the intervention was designed to provide a user with key messages and targeted information even if they had a half an hour or less to use it. Therefore, the intervention is designed to provide tailored information that is available quickly based on whether and why a user is receiving health care.

We heard that much of military health education is text based or lecture based. Some materials that are used repeatedly hold little interest for the target population. Interactive, multimedia CD-ROMs provide a delivery mechanism that can engage the audience in new ways and may compel users to look for more information or to return to use it again. The current design tries to incorporate activities that invite the user to explore different scenarios. It also provides background information that they may access if they choose. Users can choose to use recommended learning activities or to explore any that pique their interest.

From the very beginning of this project, we have been asked why the intervention was focused on only enlisted women in the Army and Navy. Since then, the military has made great strides in integrating medical care in TRICARE and in other tri-service efforts. To be consistent with this trend, we have decided to include information that will be tailored to the needs of enlisted women in the Air Force.

Several events pointed to the need to provide information to males and others who might use or view the intervention. In the case of males, we became familiar with a pocket health guide that deploying women in the Army could take with them (we originally proposed a similar tool to accompany the CD-ROM). Unfortunately, we also learned that this pocket guide was no longer being printed, because there were complaints that no similar tool was provided to deploying males. To avoid a similar fate for the CD-ROM, we provide several paths for male-specific input and feedback. This

strategy also allows us to give males information about women's health that may increase their understanding of the situation that women face (as was recommended by the enlisted women in our focus groups). We also provide information to other active duty personnel, such as male and female officers, who could also benefit from a greater understanding of reproductive health.

Another key component of the design is the use of experienced peers as a unifying theme, based on several recommendations we heard in the focus groups. We based our "briefing" video on this idea; we plan to have testimonials from experienced enlisted women and female officers who talk about the issues related to reproductive health and readiness.

# **B.** Efficacy Test Preparation Conclusions

Because the efficacy test has not yet begun, conclusions based on this task are somewhat premature. We can conclude that, despite being unable to test the intervention in deployment centers as previously planned, the current plan to use military medical facilities in the Washington DC area affords us the possibility to reach women in all three services with greater ease. In addition, the facilities in this area are likely to have clinicians who are interested in the intervention and participating in the efficacy test as co-investigators. We can also conclude that the limited time frame for the efficacy test will reduce the burden on research volunteers as well as the possibility of subject attrition.

# C. Implications of the Completed Research

Despite the delays in the development, quite a bit of work is completed, and we are optimistic that we will be able to move into the efficacy test soon. As the design and development have proceeded, our military advisors have seemed to approach the intervention with a growing sense of optimism and positive regard. A consistent message we get is that this intervention is an improvement over the training and education programs that our military advisors are used to seeing. They are excited to see the final product so they, too, can use it.

The extensive needs assessment and positive development process suggest that the completed research will be successful in delivering a useful reproductive health education intervention. Should this implication bear out, it leads to other implications related to successful dissemination of the intervention.

One implication is that the intervention will be more accessible if it is also available on the Internet. A web-based version would also allow more people to use the application in a private setting where they might have more time and more privacy and thus explore and learn more. To prepare for such a possibility, the authoring software allows us to easily port the application to the Internet.

Another implication is that the intervention will be better used if instructors charged with conducting reproductive health training and education were given an instructor's guide to help them use the intervention. The guide could show instructors how to best use the intervention with individuals or

groups or at specific training events: at basic training, during in processing, or at booster sessions such as during the annual exam. Clinicians could also get guidance on how to integrate the intervention into office visits for the annual exam, exams for acute conditions, and for predeployment exams. Our experience on other projects has shown that giving this sort of support to intermediaries promotes use of the materials as well as increasing the effectiveness of the intervention. We plan to explore other means of support to allow us to increase the dissemination of these materials following the project's completion.

Over the next year of the project, we plan to conduct the following activities:

- Finalize the design and development of the multimedia application;
- Finalize agreements with military co-investigators who will participate in the efficacy test of the application;
- Conduct the efficacy test;
- Analyze efficacy test data and report the findings; and
- Revise the intervention based on the efficacy test findings, and submit it to the USAMRMC.

# **APPENDIX A**

**CD-ROM Technology to Promote Self Care and Preventive Behaviors Among Enlisted Women** 

**Design Document** 

August 2000

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## I. Background

As the result of a formative evaluation of the needs of enlisted women regarding reproductive health education, a multimedia intervention was proposed for use in clinical and other settings with enlisted women in the U.S. Armed Forces. This application is intended to be an interactive program delivered on CD-ROM that integrates video, audio, computer graphics, photographic stills, and text. Users will be able to access information about reproductive anatomy, contraception, sexually transmitted disease prevention, proper hygiene, common reproductive health problems, and health care recommendations. Users will be given access to educational, counseling, and treatment resources. In addition, users will be given the opportunity to learn strategies for communicating with partners (past, current, and future) and health care providers. This information will be tailored based upon the user's branch of service, gender, and—if part of a medical office visit—the reason for receiving clinical care.

# II. Suggested Title for the System

The working title for this application is "Preventive Maintenance: An Interactive Manual for Active Duty Females." For descriptive purposes in this document, we will call the application DOD-CD.

# III. Target Audience and Setting for Use

This system is designed for use by enlisted women in the Army, Navy, and Air Force. The initial proposal targeted only enlisted women in the Army and Navy, but integration of the three branches of service in TRICARE and other efforts led us to conclude that all 3 services needed representation. Because active duty women who are officers may have similar concerns, they are considered a secondary audience. Enlisted males in the Armed Services may also have access to the information in the application, and benefit from it; however, they are also a secondary audience rather than a primary one.

The target audience is multicultural, so we will use a multicultural approach in preparing the program. A vary of ethnicities will be represented in videos and photographs. We will prepare text at the 8<sup>th</sup> grade reading level, and we will analyze it for readability using a computerized reading level analysis tool. Although the reading level will be in this range, the instructional design will appropriate to the actual age range of the intended audience.

The DOD-CD will be designed for initial use in military medical clinics that provide annual examinations to enlisted women. We envision that the DOD-CD should also be made available in other settings where enlisted women could access a computer. During the needs assessment, focus group participants suggested that women access such materials in settings such as: installation resource libraries and computer laboratories, shipboard computer rooms, training situations during basic training, in-processing upon arrival at a new installation, and pre-deployment.

Focus group participants also suggested making the application available on the Internet so military personnel stationed throughout the world would have access to it. As part of the efficacy study, participants will also be asked their opinion of having the application on the Internet.

# IV. Instructional Goals and Objectives

The goals and objectives for the DOD-CD are based on findings from the literature review of the science base, the expert panel, the focus groups, the secondary analysis, and the surveys with military clinicians and chiefs of service. They address a comprehensive spectrum of general women's health issues as well as women's health issues that are relevant to military needs such as readiness. Data collected in the original needs assessment allow us to make these parallel judgments.

The overall goal of the intervention is to promote military readiness by enhancing enlisted women's self-care and care-seeking behavior for their reproductive health.

The key goals of the intervention are to:

- Increase enlisted women's understanding of reproductive health,
- Increase their ability to be assertive and responsible for their health and well-being,
- Increase their communication skills, and
- Increase appropriate reproductive care seeking.

Specifically, the enlisted female user of the system will:

- Increase knowledge and awareness about STD infection, unintentional pregnancy, and vaginal infection.
  - Increase knowledge (i.e., the female reproductive system, symptoms of reproductive health problems, contraceptive methods, sexually transmitted diseases, proper hygiene practices)
  - Increase perceptions of susceptibility (i.e., unintentional pregnancy, STD infection)
  - Increase awareness of resources: educational, support, and treatment
  - Increase awareness of help-seeking opportunities
- Increase readiness to take appropriate action.
  - Increase intentions to practice preventive behaviors (i.e., safe sex practices, contraception, proper hygiene) in general and in the field
  - Increase intentions to practice appropriate health care behaviors (e.g., seeking medical consultation for routine and acute care, following treatment recommendations)
  - Increase capacity to communicate effectively with past, current, and future sexual partners
  - Increase capacity to communicate effectively with health care providers.

# V. Key Messages

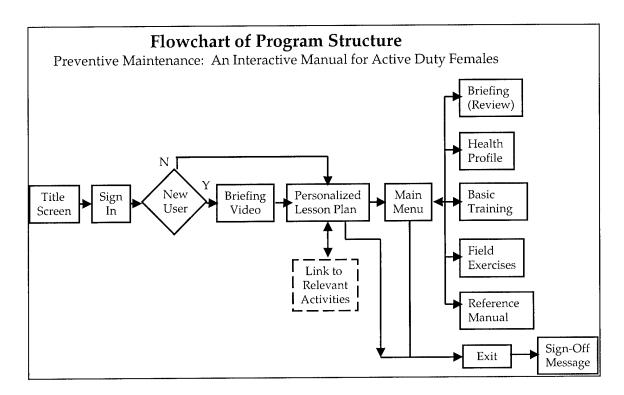
### **Key Messages**

- Taking responsibility for maintaining your health and physical fitness is an important key to being an effective, productive member of your unit and to serving your country.
- Paying attention to your health needs does not prevent you from being an effective member of the military.
- As a woman in the military, you face unique circumstances that can place you at increased risk for reproductive health problems compared to civilian women.
- The high male to female ratio and tense training situations in the military can place you at increased risk of getting involved in sexual situations where risk behavior can occur.
- Take action now to protect and maintain your reproductive health so that you will enjoy a healthy reproductive lifecycle.
- Practice safe sex and use contraception so you have choices about when and how you have children and so you protect your reproductive health.
- You can learn skills that will help you protect your health and communicate your needs to a partner in an intimate relationship.
- You can learn skills that will help you feel confident in communicating your needs and concerns to your health care providers.
- Be honest with your health care provider about your health and health history so you will get the care you need.
- You may not be able to tell if you have some reproductive health problems because they often have no symptoms.
- Use the pre-deployment physical exam to find out how to protect your health in the field.
- You must request some medical services—STD screening at routine health exams and pregnancy testing at pre-deployment exams—because medical providers may not provide them routinely.

# VI. Program Structure

The system begins with an overview of the topical issues on military women's health presented through testimonials by enlisted women and experienced peers. Following this "Briefing," the user will be presented a menu of activities. They can explore the activities at will, or they can follow a path of activities recommended to them based on their medical care status (reason they are receiving medical care).

The conceptual flowchart is below. A more detailed flowchart showing the learning activities accessed through the choices off the main menu is in Appendix A. Appendix B illustrates the screen design.



#### A. Title Screen

The introduction will be a short welcome to the program, inviting the user to the system. The program will next introduce its purpose: "This program is designed to help you learn more about your body and your health as a woman as an a member of United States military."

### B. Sign In

After the introduction, a short section of select demographic and medical history questions will be asked. This will enable the program to tailor the information on

gender and reason for having the medical consultation. Before answering these questions, users will be informed that the information will be kept confidential and will only be used within the program itself to refer them to information that will be relevant to them.

#### 1. Gender

The program will seek gender identification, because the information will be tailored according to gender. For men, a message will come up alerting them that the information will help them understand women's reproductive health and that it may help them in their personal and professional relationships with women.

#### 2. Race

The program will ask the user's racial background in the initial testing of the multimedia product. Although the application will be designed with images of people of many cultures, assessing its use by people of different groups will help direct the future development of similar multicultural computer interventions.

#### 3. Branch of service

Although the military is moving toward integrated health services, women in different services are likely to experience different field conditions and different regulations. This question will help tailor the type of images and scenarios that the user will later see.

#### 4. Medical examination status

This question will ascertain whether the user is: a) seeing a clinician for a routine annual examination; b) having an acute care visit (medical complaint); c) having a pre-deployment physical, or d) viewing the application independent of medical care. Messages and recommended activities will be tailored based on the response to this question. For example, users having a routine examination will be directed to scenarios reinforcing open communication with medical care providers during medical examinations and basic information on anatomy and physiology. Those with symptoms or positive test results will receive more specific information about reproductive health problems. Women preparing to deploy will be reminded to have a pregnancy test prior to deployment. This question will also help tailor the type of communication scenarios that the user will later see.

# 5. New or returning user

This question will ascertain whether the user has used the application before. All new users will view the briefing video so that they are exposed to the key messages. Returning users can bypass the video if they choose.

# C. Briefing Video

The purpose of the briefing video is to quickly cover important key messages and to introduce the application. A first time user must see the briefing video. Because the user may only see the briefing video, covering key messages in a short introduction will ensure that all new users will leave with them in mind. The briefing will be available from the main menu of the application, so users will have the opportunity to view the briefing again if they want to see it. The script for the briefing is in Appendix C.

Returning users will not be shown the briefing video automatically but will instead be taken to the main menu. They may, however, choose to view it again when they reach the main menu.

#### D. Tailored Feedback/Personalized Lesson Plan

Based on the input on the sign in screen, this section of the program will provide a brief tailored message and a personalized plan for viewing the learning activities. These messages and plans will be tailored based on the user's gender and medical examination status (see Tables 1 and 2). Users can decide whether to view the suggested material or to explore the main menu at will. Users can also decide to exit the program at this point.

For users who view the application outside of a clinical visit, the personalized lesson plan will emphasize general reproductive health promotion concerns. However, those attending a clinical visit will also receive a recommendation to review the general health promotion materials in addition to the materials and activities relevant to their medical examination status.

The activities are described in detail within section E, "Main Menu." Description of the "Exit" is in section F.

Table 1: Tailored Feedback for Female Users by Medical Care Context *		
Segment	General Message	Learning Activities
Annual Exam	You are about to receive your annual pelvic examination. Congratulations on taking this important step in taking care of your health. If you have noticed any physical changes since your last exam, let your health care provider know about them. If you haven't noticed any changes, this is a good time to learn more about your body, your contraception, what happens in the exam, and how to stay healthy.	Virtual check-up Review the steps in the exam and learn how you can get the most of talking to your doctor or nurse.  Virtual Sick Call If you have noticed changes you want your doctor to examine.  Signs & Symptoms Learn about common reproductive health problems and which can have no symptoms.  Contraception Exploration If you are here to begin using a new method of birth control or renew a prescription.
Medical Complaint	You have noticed some symptoms or are concerned that you have a reproductive health problem. It is good that you have taken the time to have an examination. Share all you know about your condition with your health care provider so you make sure you get the care you need.	Virtual Sick Call Review the steps in the exam and learn how you can get the most of talking to your doctor or nurse.  Signs & Symptoms Learn about common reproductive health problems and which can have no symptoms:  Virtual Relationship Find out how to talk to your partner about a vaginal infection.
Pre-Deployment Exam	You are about to receive a pre-deployment examination. It is good that you have taken the time to have an examination to prepare for deployment. This is a good time to learn more about staying healthy in the field, about your contraception, and how to pack to prepare for your women's health needs. If you think you may be pregnant or you aren't sure, ask your health care provider for a pregnancy test during the examination.	Virtual Pre-deployment Exam Review the steps in the exam and learn how you can get the most of talking to your doctor or nurse.  Virtual Self-Care Learn about how to stay clean in the field or on shipboard:  Deployment Supplies Exploration Practice making choices on what to take with you for your women's health needs.  Contraception Exploration If you need to do a prescription review, consider the method of birth control you will take.
Not Receiving Medical Care	This program will help you learn about your body and how to stay healthy. Check out the activities that let you explore how to prevent sexually transmitted diseases and other infections. Other activities let you explore the costs of having a baby and ways to delay having a baby. You can also explore what can happen in a first date or when you have to give a date some bad news.	Health Profile Get a review of your health history. Female Body Exploration Learn more about your body and how it works. Baby Budget Exploration Calculate how much it costs to have a baby in the military. Contraception Exploration Explore which type of birth control is best for you. Virtual Relationship Explore ways to talk about sex with a new or current partner. Virtual Self-Care Learn ways to stay clean in the field, on shipboard, or anywhere. Reference Manual Browse the library of health materials to learn more.

<sup>\*</sup> All female users will be given links to general activities in the "Not Receiving Medical Care" condition.

Table 2: Tailored Feedback for Male Users by Medical Care Context *		
Segment	General Message	Learning Activities
Medical Complaint	You have noticed some symptoms or are concerned that you have a reproductive health problem. It is good that you have taken the time to have an examination. Share all you know about your condition with your health care provider so you make sure you get the care you need.	Virtual Sick Call Review the steps in the exam and to learn how you can get the most of talking to your doctor or nurse.  Signs & Symptoms Learn about common reproductive health problems, their signs and symptoms, and which can have no symptoms.  Virtual relationship/bad news Find out how to talk to your partner about a vaginal infection.
Pre-Deployment Exam	You are about to receive a pre-deployment examination. It is good that you have taken the time to have an examination to prepare for deployment. This is a good time to learn more about staying healthy in the field, and how to pack to prepare for all of your needs.	Virtual Pre-deployment Exam Review the steps in the exam and to learn how you can get the most of talking to your doctor or nurse.  Virtual self-care Learn about how to stay clean in the field or on shipboard.  Deployment Packing Practice making choices on what to take with you.  Contraception Exploration Consider the method of birth control you will take.
Not Receiving Medical Care	This program will help you learn about your body and how to stay healthy. Check out the activities that let you explore how to prevent sexually transmitted diseases and other infections. Other activities let you explore the costs of having a baby and ways to delay having a baby. You can also explore what can happen in a first date or when you have to give bad news to someone you've been involved with.	Health Profile Get a review of your health history Female Body Exploration Learn more about the female body and how it works. Baby Budget Exploration Calculate how much it costs to have a baby in the military Contraception Exploration Explore which type of birth control is best for you: Virtual Relationship Explore ways to talk about sex with a new or current partner. Virtual Self-Care Learn ways to stay clean in the field, on shipboard, or anywhere.

<sup>\*</sup> All male users will be given links to general activities in the "Not Receiving Medical Care" condition.

### E. Main Menu

If they choose to explore the activities without use of the personalized feedback, users will be able to access them by topic area from a "main menu." The main menu will have seven choices:

- Briefing
- Health Profile
- Basic Training
- Field Exercises
- Reference Manual
- Exit

### 1. Briefing

Users will be able to review the briefing video in case they want to see the messages highlighted again. Returning users who are not made to review the briefing may choose to do so from the main menu.

#### 2. Health Profile

The health profile is a self-assessment of the users' health and sexual history. Users will receive tailored feedback in terms of recommended

- Learning activities
- Briefing documents in the library
- Screening tests for her age group
- Questions to ask her health care provider.

# 3. Basic Training

The Basic Training section provides interactive tools that allow users to explore various aspects of reproductive health issues in terms of background information, the factors that affect them, and what choices they have. The storyboards for these activities are in Appendix D. Each "Exploration" will be comprised of 3 parts:

- 1) An introduction to give an overview of the activity and its purpose.
- 2) A briefing to provide factual information and links to relevant library materials.
- 3) An exploration activity where the user can modify various factors to see how they affect the reproductive health issue. Tailored feedback gives users an analysis of their choices.

#### a. Female Body Exploration

<u>Introduction:</u> The purpose of this activity is to familiarize users with the female reproductive system and how it operates normally during menstruation, ovulation, fertilization, and cleansing. Users will also explore the factors that impact reproductive health: amenorrhea, vaginal infection, urinary tract infection, sexually transmitted disease infection, and ectopic pregnancy.

<u>Briefing:</u> The briefing covers the parts of the female reproductive system, normal functions, and signs of disease. Factors that influence the health of the female reproductive system will be explained. Both normal and

abnormal functioning will be further explained through animations.

Exploration: Users can change different factors related to hygiene, sexual behavior, and demographic risk factors as well as protective factors. Graphic feedback will demonstrate the possible impact of those choices on the female body. Written feedback will explain the affect of the choices. They can toggle their answers and see how different answers influence health. The user can link to the library materials to learn more about the female body and hygiene and wellness practices.

### b. Contraception Exploration

<u>Introduction</u>: The purpose of this activity is to allow users to explore the factors that impact satisfaction with a contraceptive method.

<u>Briefing:</u> The briefing covers the factors that influence the type of birth control that one uses: age, gender, health history, sexual practices history, and attitudes and preferences.

Exploration: Users input answers to various health history and attitude questions and receive targeted feedback concerning which method(s) of birth control fit best with the situation, health history, and attitudes indicated in the exploration. They can toggle their answers to see how the recommended birth control method might change. Users who are having a predeployment physical and who use prescription contraceptives will be reminded to get a prescription filled. The user can link to the library materials to learn more about the contraceptive methods that are recommended.

#### c. Baby Budget Exploration

<u>Introduction:</u> The purpose of this activity is to allow users to explore the economic impact of parenthood.

<u>Briefing</u>: The briefing covers information about the responsibilities of being a parent and how being in the military affects parenthood.

<u>Exploration</u>: Users explore the cost of the first year of raising a child, from birth to 12 months, in terms of their pay grade. Users can choose where they may save on different costs (e.g., borrowed rather than new nursery furniture). The user can link to the library materials to learn more about pregnancy and parenthood related issues, including current medical profiles for active duty females who are pregnant.

# d. Deployment Packing Exploration

<u>Introduction:</u> The purpose of this activity is to allow users to explore the health considerations to keep in mind while preparing for deployment while also learning what supplies are not recommended.

<u>Briefing:</u> The briefing covers how reproductive health is affected when a woman is deployed.

Exploration: Users input how long a deployment might be and to what type of climate. Branch of service will default depending upon the user's profile, but the user can change the default if she wants to see if there are different issues for women in other services. Tailored feedback will give user positive feedback if she packed appropriate supplies and negative feedback for packing supplies that are not recommended. The user can link to the library materials to learn more about ...

# e. Signs and Symptoms Exploration

<u>Introduction:</u> The purpose of this activity is to allow users to explore the possible signs and symptoms of common female reproductive health problems.

<u>Briefing:</u> The briefing reviews basic steps in monitoring one's own health and when it is important to seek medical attention. The briefing reinforces the asymptomatic nature of some reproductive health problems as well as the importance of having annual gynecologic examinations and requesting screening to identify asymptomatic disease.

Exploration: Users select a vaginal health problem and try to match the signs and symptoms, risk rate, and consequences of untreated disease. Tailored feedback will show which of the elements were correctly matched and which were incorrectly matched. Feedback will always emphasize that diseases may be asymptomatic. Women will be encouraged to seek medical screening if they think they have a reproductive health problem, and they should adhere to treatment recommendations if they find they find they have developed a condition. Users can resubmit their answers to try to improve their score. They can also link to materials in the reference manual (library) to learn more about the reproductive health problems common among women.

### 4. Field Exercises

The communication scenarios in the "Field Exercises" will provide skills training in discussing reproductive health, sexual risk behavior, STD

infection, and safe sex with sexual partners and health care providers as well as demonstrating proper hygiene practices.

The scenarios will allow the user to make behavioral choices for a character on the screen that will approximate the types of choices in a particular communication task. If the choices are less than optimal, they will experience a negative outcome, such as rejection by a sexual partner. Positive choices will result in a more calm and positive experience between partners or between clinician and patient. Users will be able to restart the scenario, giving them an opportunity to improve their reactions to the situation.

Because individual sexual partners or clinicians vary in how they may react in a given scenario, feedback at the end of the scenario will explain that individuals vary in their reactions but that the skills illustrated will give users some support in handling situations they may experience. Their partner (or health care provider) may not behave like the one portrayed in the scenario, but the information presented will still help them in their personal interaction. Appendix E contains flowcharts and screen design for the interactive scenarios.

#### a. Virtual Examinations

In these field exercises, female users will be able to step through different physical examination visits they may encounter, learning communication skills, patient rights and responsibilities, and what they might expect in the clinical encounter. The choices will represent a range of consumer health choices, from passive to active, so users will see how they might improve the education and care they receive in these exams. Users can consult an experienced peer/first sergeant about their options.

### 1) Virtual Check-Up

Users who are having an annual exam will receive a recommendation to view this scenario in the tailored feedback following the briefing. The user will make decisions on the following areas:

- Making an appointment
- Preparing for the examination
- Answering medical and sexual history questions
- Asking questions about health and treatment options
- Seeking education and advice
- Speaking up about concerns (e.g., confidentiality) or problems

(e.g., rudeness)

### 2) Virtual Sick Call

Many of the same concerns from the annual examination will be explored in the scenario for a medical complaint. Additional emphasis will be placed on displaying proactive health consumer behavior regarding:

- Answering medical and sexual history questions honestly
- Requesting screening tests for infections, including STDs
- Seeking information about benefits and risks associated with recommended medical treatment and medication.
- Seeking information about proper hygiene practices and safe sex practices

### 3) Virtual Pre-Deployment Exam

Similar concerns from the annual examination will be explored in this scenario. Additional emphasis will be placed on displaying proactive health consumer behavior regarding:

- Answering questions about contraception and other prescriptions honestly
- Requesting a pregnancy test prior to deployment
- Seeking information about proper hygiene practices in the field or shipboard settings.

#### b. Virtual Relationship

Although clinicians and health educators recommend talking to sexual partners about sex and infections, little guidance is offered about communication on these sensitive subjects. These situations can be awkward and can become explosive if the person is unable to communicate adequately. Whether in a new or existing relationship, people have difficulty finding the words to talk about sensitive issues such as contraception, pregnancy, safe sex, and STDs.

The user will be asked if they would like to review scenarios for people who are single and dating or who are in an ongoing relationship. The single/dating relationship scenarios will concentrate on first date, talking about sex, and condom negotiation. The ongoing relationship scenarios will concentrate on bringing up using condoms in an ongoing relationship

and on giving bad news in the form of a pregnancy scare or a possible STD infection.

### 1) Going on a Date

This scenario will allow the user to plan a date with a new or current partner and decide whether or not to engage in behavior that is related to avoiding STDs and unintentional pregnancy. Planning the date will include where the couple decides to go and what birth control methods are used, if any. Behaviors that increase the risk of STDs and problem pregnancy include: alcohol consumption, lack of communication on sexual matters, and unprotected intercourse and/or ineffective birth control. The user will be able to practice communication skills in the following areas:

- Using effective communication strategies
- Asking sensitive questions about partner's sexual history
- Being assertive about delaying sexual activity if she doesn't want to have sex
- Being assertive about using condoms if she agrees to have sex.

# 2) Giving Bad News

The user is placed in a situation of having to tell a current or future sexual partner about an STD infection or an unintentional pregnancy. The partner will respond positively or negatively based on the user's decisions about:

- When and where they talk to the partner
- How they bring up the topic
- Who they involve in their support network
- What they say when bringing up the topic
- Where they choose to get help
- How to discuss disease severity, transmission, and prevention
- How to recommend to a current partner they he or she receive medical care.

#### c. Virtual Self-Care

These scenarios are different from the others in the field exercises because they serve to model appropriate behaviors related to hygiene in different settings. The user will be able to practice reviewing the steps to the hygiene-related skills, such as creating a bird bath or shower to bathe in field settings.

# 1) General Hygiene

This field exercise provides basic information about normal vaginal discharge and how to prevent vaginal infections and urinary tract infections through hygiene and wellness practices:

- Keep the vaginal opening dry
- Wear cotton underwear
- Wash underwear in mild soap
- Avoid using scented products--tampons, sanitary napkins, wipes, soaps, sprays, and toilet paper--which can irritate the vagina
- Do not wear tight fitting pants or pantyhose
- Wipe from front to back to avoid bringing bacteria into the vagina (will include animation showing proper wiping technique)
- Urinate after intercourse
- Drink at least 8 glasses of water a day
- Avoid douching, which can destroy the good bacteria in the vagina. If you douche, do so only twice a week and use a vinegar and water solution
- If you use tampons, change them every 6 to 8 hours and avoid wearing them when your menstrual flow is light.
- Cut down on refined sugars.

# 3) Hygiene on Shipboard

Emphasis is on conditions that make practicing proper hygiene difficult and how to cope with them:

- Lack of time: Suggest ways to streamline hygiene practices (e.g., if you only have a short time to bathe, focus on cleaning the genitals, arm pits, teeth, and face). Show video of male and female sailors rushing around inside a ship.
- Lack of supplies and/or clean clothes: Suggest ways to prepare for hygiene needs on shipboard (e.g., how to calculate how many tampons and sanitary napkins to bring, bringing panty liners to extend use of underwear). Model how to request supplies when needed through video of female sailor requesting hygiene supplies from supply room.

- Problems drinking enough water: Dispel myths about avoiding water. Suggest ways to drink more water.
- Problems keeping dry: Suggest ways to stay dry, such as bringing additional underwear or panty liners.

# 4) Hygiene in the Field/Tent Camp

Similar advice as given in Hygiene on Shipboard will be provided. However, additional information will be presented:

- Video will show soldiers and sailors in camp settings.
- Animations and/or video will model how to bathe using a bird bath or creating a shower out of common camp materials.
- An additional caution will be given about using baby wipes in the field. These may increase moisture if the vagina is not allowed to dry. Also, any baby wipes that are used should be unscented.

### 5. Reference Manual (Library)

The user can access concise documents on a variety of health issues in the Reference Manual, which will be a library of brochure type materials and links to relevant Internet sites for computers that are able to connect to the World Wide Web.

- a. Anatomy/Physiology
- b. Hygiene and Wellness
- c. Contraception/Pregnancy
- d. Safe Sex Practice/Sexually Transmitted Diseases
- e. Reproductive Health Problems
- f. Health Care/Health Information Sources
- g. Glossary

#### F. Exit

Users who choose to exit the program may do so from the personalized lesson plan or from the main menu. The program will thank them for using the program: "Thank you for using Preventive Maintenance: A Manual for Active Duty Females. We hope it has helped you take action now to protect and maintain your health as a woman and as a member of the United States military."

A brief tailored message will then appear to reinforce key messages relevant to their situation and based on the characteristics they indicated when they began the

program:

Annual Exam: "Take the opportunity to learn about your body and your

health during your visit today. Remember to request screening if there is any chance you may have been exposed

to a disease."

Medical Complaint: "Make sure you get all of your questions answered during

your visit today. Remember to be up front about all of your concerns with your medical provider so you get the proper

care."

Predeployment Exam: "Make sure to get all your questions answered about how to

stay healthy in the field. Remember to request pregnancy

testing if you think you may be pregnant."

### VII. Screen Design

A. Menu Bar: Windows application Menu Bar

The menu bar will be available at all times during the application. It will allow the user to perform functions such as saving their file and changing coaches. It will also enable them to access information, such as answers to HPV questions, more quickly.

File File drop down menu

Sound Allows user to use a toggle to turn the sound on or off

Open Open an existing file

Print Allows the user to print the whole screen, feedback

from an activity, or library material. (This function is only available for computers that have print

capability.)

Training Plan Takes user to personalized lesson plan

Change Profile Update user profile (e.g., user can change the type of

exam)

Exit User exits program

Contents Navigation drop down menu

Briefing Takes user to the view the briefing

Health Profile Takes user to the introduction of the health assessment
Takes user to the menu for the interactive activities

Female Body
 Contraception
 Baby Budget
 Takes user to the introductory screen
 Takes user to the introductory screen

Deployment Packing Takes user to the introductory screen

• Signs and Symptoms Takes user to the introductory screen

Field Exercises

Takes user to the main menu for the Field Exercises

• Virtual Examinations Takes user to menu for Virtual Check-up,

Virtual Sick Call, and Virtual Pre-Deployment

Exam

• Virtual Relationship Takes user to menu for Going on a Date and

Giving Bad News

Virtual Self Care Takes user to menu for General Hygiene,

Hygiene on Shipboard, and Hygiene in the

Field

Reference Manual Takes user to the menu for the reference manual

(library).

Anatomy/Physiology Listing of documents related to pelvic and breast

anatomy and female reproductive functions.

Hygiene and Wellness Listing of documents related to hygiene practices,

general health behaviors (nutrition, fitness, stress management), and screening recommendations.

Contraception/Pregnancy Listing of documents related to contraceptive options,

normal pregnancy conditions, problem pregnancy conditions, and military service-related regulations.

Safe Sex/STDs Listing of documents describing different sexually

transmitted diseases, safe sex practices, and

communication strategies.

Reproductive Health Problems Listing of documents related to common

reproductive health problems among women with special attention to common problems that occur

during deployment.

Health Care/Information Listing of military and other support groups, hot-lines,

and medical services as well as issues related to

communicating with health care providers.

Glossary Listing of terms and definitions.

Help drop down menu

Search for Help... Search function

How do I... Help on functions of the program

What's This Help on page-specific functions of the program

Current Activity Help on how to use the activity currently being used.

About Preventive Maintenance Link to brief description of development effort

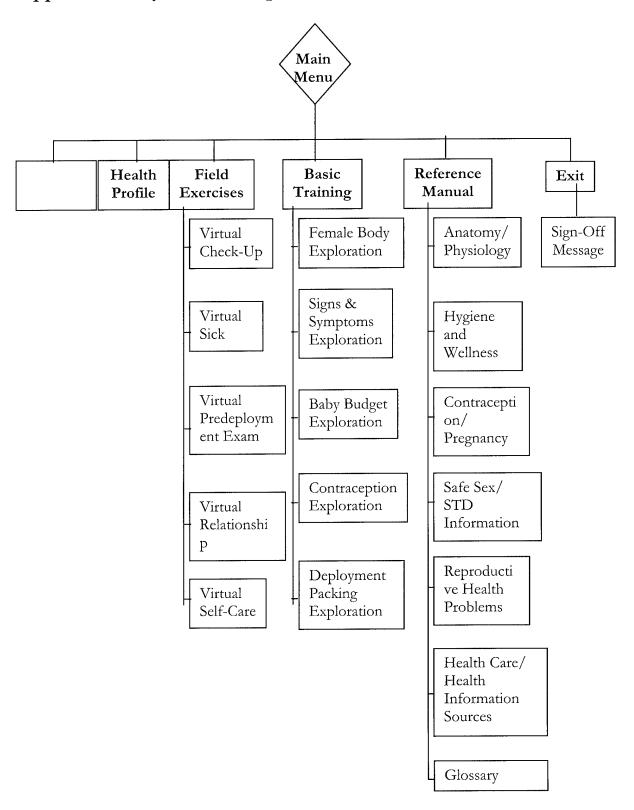
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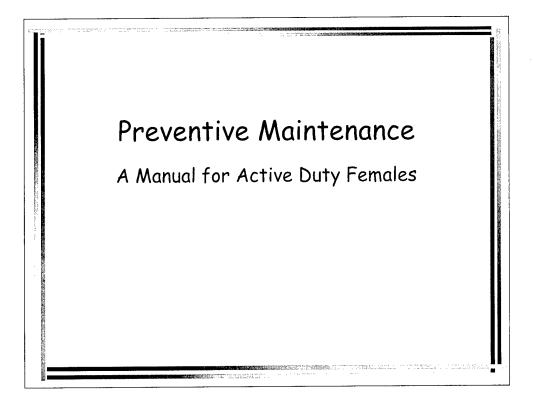
# B. Program Control Strip: Toolbar

A control strip will be available at all times. It will allow the user to control program functions. When the user has the mouse over these buttons, the description of the choice will appear in a comment window on the title bar of the page. The graphic and the functionality of each button will be similar to those found in an Internet browser and CD-ROM and video players:

1.	Back:	This button will allow the user to go back to the last choice made.
2.	Forward:	The user will be able to use this button to move on to the next section of the program.
3.	Pause/Play:	This button will allow the user to stop and start a video or animation clip or audio segment.
4.	Repeat:	To hear or see the last video, animation, or audio again, the user can press this button.
5.	Menu:	Takes user to the main menu. If the user is in an activity and presses this button, the user will be asked to confirm that she wants to exit the activity.
6.	Plan:	Takes user to personalized lesson plan. If the user is in an activity and presses this button, the user will be asked to confirm that she wants to exit the activity.
7.	Print:	Depending upon the user's location in the program, the print button allows the user to print the whole screen, feedback from an activity, or library material. This function is only available for computers that have print capability.
8.	Search	Depending upon the user's location in the program, the user can search within the current activity, glossary, or entire program by keyword.

Appendix A: System Conceptual Flowchart of Learning Activities





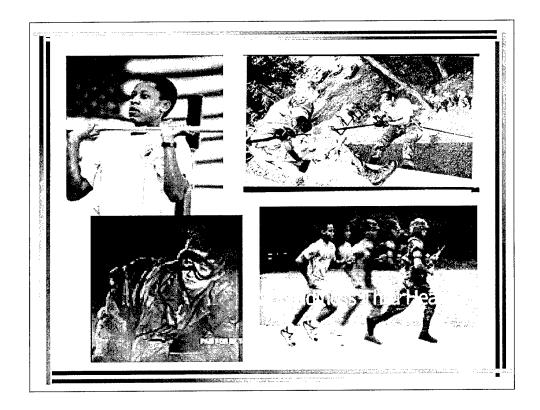
Welcome to the CD-ROM Program "Preventive Maintenance" for active duty females.

	choices describe yo choices in each colu	
Have you used this program before?	☐ Yes	□ No
Why are you receiving medical care today?	☐ Annual Exam	☐ Predeployment Exam
	☐ Medical Complaint	■ Not seeking care
What is your gender?	☐ Female	☐ Male
What is your branch of service?	☐ Army	□ Navy
	□Air Force	☐ Marine
What best describes your race/ethnicity?	☐ African American☐ Caucasian/White☐ Hispanic	☐ Asian/Pacific Islander☐ American Indian/ Alaska Native☐ Other

Column 1: only one choice allowed

Column 2: can check as many as apply

Column 3: can check as many as apply



#### SCENE 1

High energy montage of male and female soldiers, sailors, and airmen in rigorous physical training exercises (High energy MUSIC)

#### NARRATOR V.O.

Being in the military requires a special commitment to health and fitness. It's a responsibility you not only owe to yourself, but those serving beside you.

#### V.O. FEMALE SOLDIER/SAILOR #1

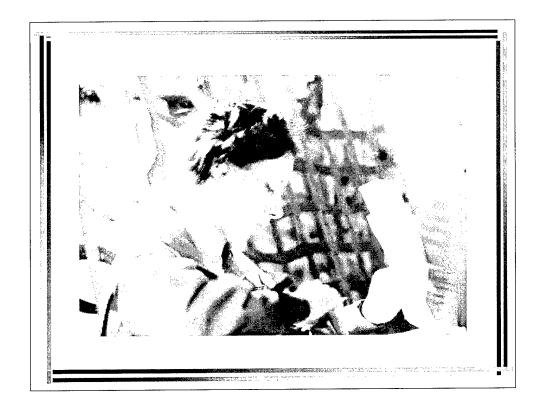
"The training's been hard but we're prepared for whatever comes."

#### V.O. FEMALE SOLDIER/SAILOR #2

"We're fit and ready-to-go!"

#### NARRATOR V.O.

Today's active duty women are as fit as their male counterparts, and, not surprisingly, more fit than women in the general population. But unlike men or women civilians, women in the military face unique circumstances that can threaten their health as women - their reproductive health.

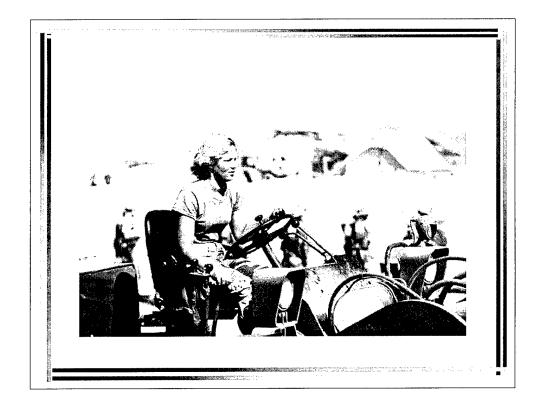


#### SCENE 2

Medical Provider On-camera.

#### **HEALTH PROVIDER #1**

"When you enter the military, life becomes a lot more complex. You find yourself out in the field or aboard ship where you can't keep clean like you usually do. Many females in the military are at an age and place where they have more intimate relationships that are also more intense. Some of the recent military conflicts have taught us a lot about what this means for readiness."



#### SCENE 3

Desert Storm & Bosnia footage.

#### NARRATOR V.O.

During Desert Storm, a high percentage of sick calls for women were due to reproductive health problems such as infections and sexually transmitted diseases. (25.6% of diagnoses recorded). In Bosnia, 70% of the women found to be pregnant in country were pregnant before they arrived. While the military is committed to improving sanitary conditions and supplies to enhance readiness, the military woman must do her part, and ultimately, be responsible for her own reproductive health.



#### SCENE 4:

B-roll of field activities. It is clear that the activities are taking place away from normal facilities.

#### V.O. FEMALE SOLDIER/SAILOR #3

"My first field exercise shocked me. I didn't bring anything to clean myself with, and there was little water or privacy."

#### V.O. FEMALE SOLDIER/SAILOR #4

"I remember having to hold it in because there wasn't a time or place where I could go to the bathroom. Now I hear you can get sick just by not going often enough."



SCENE 5

Senior Enlisted Woman #1 On-camera.

#### SENIOR ENLISTED WOMAN #1

"It's true. You want to be able to relieve yourself to keep the bacteria from building up and causing an infection. And it's not an option to stop drinking water! You also need to learn how to wash up and what to pack. This is the kind of information you need to know to reduce your health risk."



#### SCENE 6

Related video of information resources (brochures, etc.), and woman talking to medical professional.

#### NARRATOR V.O.

The potential for hygiene-related problems can be reduced through preventive maintenance. A pre-deployment exam is a good opportunity to communicate your concerns and ask specific questions. At this exam, you also need to get adequate contraceptive supplies and have a pregnancy test if you have been sexually active. Learn how to help the professionals help you!



#### SCENE 7

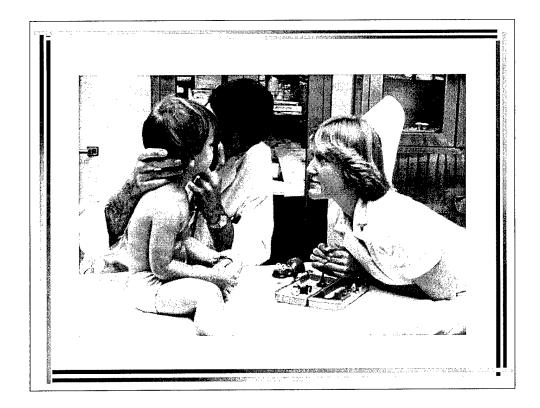
B-roll of men/women working together, social life, bar scenes, and family scenes.

#### V.O. FEMALE SOLDIER/SAILOR #5

"When I first got out of basic, I couldn't believe the buzz between the males and females. And the pressure! -- especially because there were so many more men than women. Even the 'plain Janes' were really getting involved."

#### V.O. FEMALE SOLDIER/SAILOR #6

"Your social life goes from zero to 100 mph. It's like you're away from home and anything goes! Some don't handle it very well. They get involved with anyone and everyone, and it doesn't stop when they're in the field (on the ship)! I know some people think that since the military screens for AIDS you're OK if you sleep with someone on base."



SCENE 8

Senior Enlisted Woman #2 On-camera.

#### SENIOR ENLISTED WOMAN #2

"AIDS is just one of many things you can get through sexual contact. I saw a survey that said that one in four military women has had a sexually transmitted disease. Some STDs can give you cervical cancer, and some can damage your organs so you can't ever get pregnant. A lot of single females having sex get pregnant, too. They don't realize how hard it is to raise a child, especially alone. The more sexually active you are and the less you know, the greater the chance. You can't just let things 'happen."

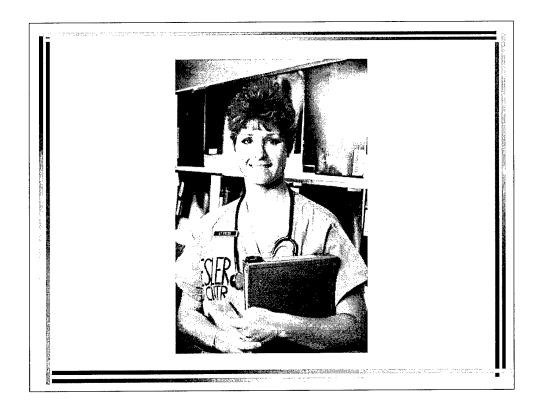


#### SCENE 9

Anatomical graphics, contraceptives, and couple talking while alone.

#### NARRATOR V.O.

Taking control of your relationships begins with learning the basics about disease and how it's transmitted through sex, about contraception for preventing disease and pregnancy. Learning how to talk with your partner about these issues is critical.

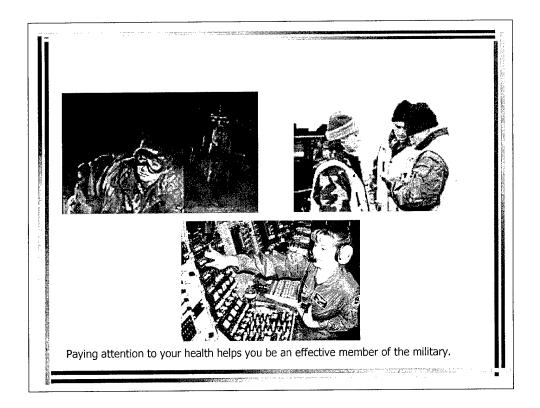


SCENE 10

Senior Enlisted Woman #3 On-camera.

#### **SENIOR ENLISTED WOMAN #3**

"The answer is taking control, in your relationships *and* your health care. In the military you need to be an assertive health care consumer. Find the resources and make the best use of them. Talk to your health care provider *honestly* so you will get the care you need and deserve. Taking charge of your health *lets* you choose when you want to take on the responsibilities of family life. The military has many great opportunities. Take advantage of them."



#### SCENE 11

CD-ROM Menu screen. Various areas highlighted

#### NARRATOR V.O.

This CD is a resource designed to help you take control of your reproductive health.

If you're about to have an annual exam, review these areas to help you communicate with your health care providers about your specific condition. (Menu areas highlighted)

If you think something's wrong, check out these areas to help you finding out the best way of solving your problem. (Menu areas highlighted)

You'll want to check out these areas if you're going to be deployed soon. (Menu areas highlighted)

To get a broad introduction to the issues important to your health as a woman, explore these areas. (Menu areas highlighted)

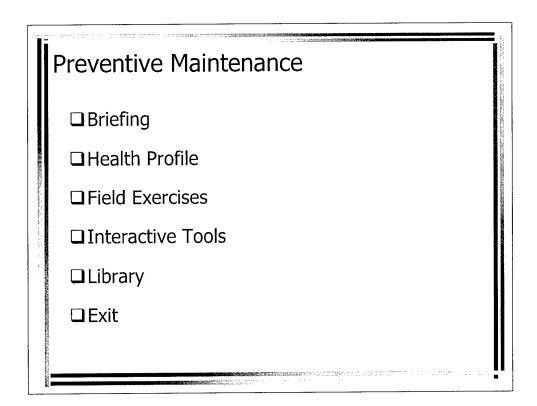
### Training Plan

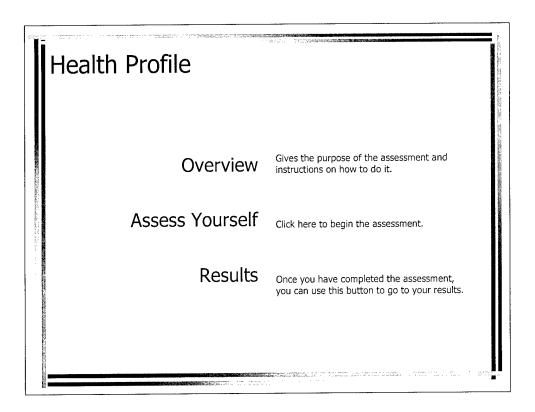
You are about to receive your annual pelvic examination. Congratulations on taking this important step in taking care of your health. If you have noticed any physical changes since your last exam, let your health care provider know about them. If you haven't noticed any changes, this is a good time to learn more about your body, your contraception, what happens in the exam, and how to stay healthy.

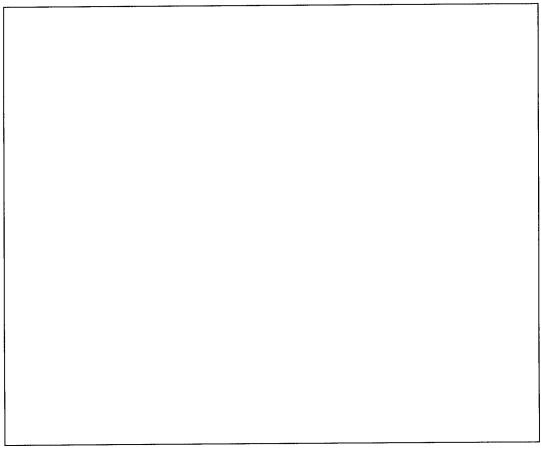
You can also use this program to learn about your body and how to stay healthy. Check out the activities that let you explore how to prevent sexually transmitted diseases and other infections. Other activities let you explore the costs of having a baby and ways to delay having a baby. You can also explore what can happen in a new or ongoing relationship.

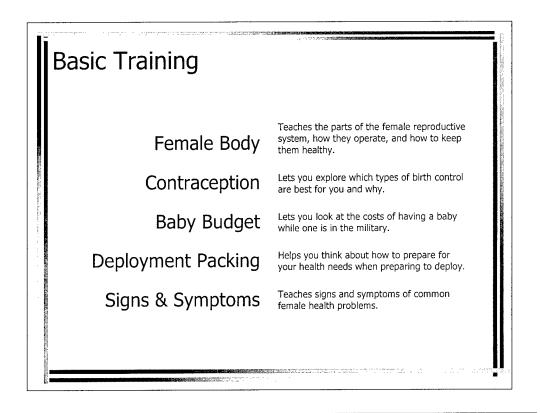
- <u>Virtual Check-Up</u> Learn how you can get the most of talking to your doctor during an annual exam.
- <u>Virtual Sick Call</u> Go here if you have noticed changes you want your doctor to examine.
- <u>Signs & Symptoms</u> Learn about common reproductive health problems.
- <u>Contraception Exploration</u> Go here if you are here to begin using a new type of birth control or renew a prescription.
- Health Profile Get a review of your health history.
- Anatomy Exploration Learn more about your body.
- <u>Baby Budget Exploration</u> Calculate how much it costs to have a baby in the military.
- <u>Virtual Relationship</u> Explore ways to talk about sex with a new or current partner
- <u>Virtual Self-Care</u> Learn ways to stay clean in the field, on shipboard, or anywhere.

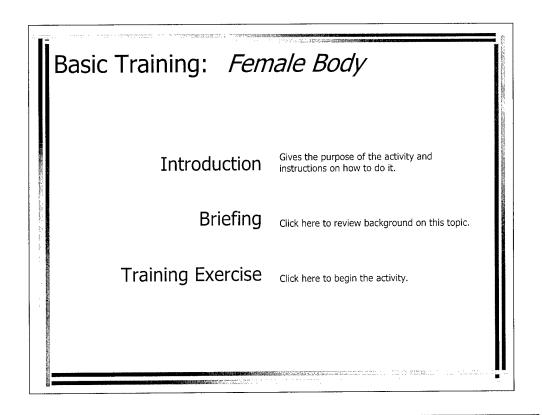
Training plan for woman coming to her annual examination

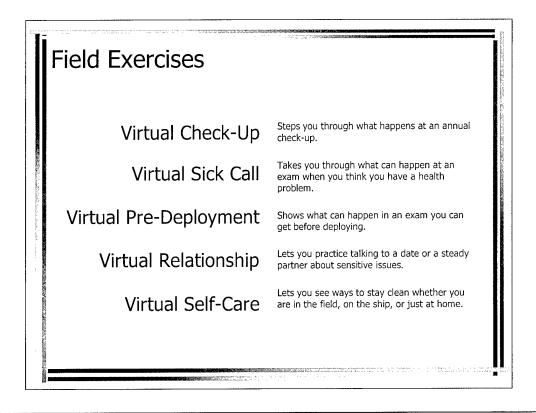












### Reference Manual

Anatomy & Physiology Hygiene & Wellness

Birth Control & Pregnancy

Safe Sex/STDs

Female Health Problems Health Care Information

Glossary

Information on the female reproductive system.

Information on staying clean and protecting your health.

Information on how to keep from getting pregnant.

Information on infections you can get when having sex and how to avoid them.

Information on common health problems women get in their reproductive system.

Where to get information on health care services and health information.

Definitions of words in this program and how to say them.

#### Appendix C: DOD Women's Reproductive Health CD-ROM

### **Briefing Video**

(5/17/00 Draft)

1. High energy montage of male and female soldiers, sailors, and airmen in rigorous physical training exercises

(High energy MUSIC)

#### NARRATOR V.O.

Being in the military requires a special commitment to health and fitness. It's a responsibility you not only owe to yourself, but those serving beside you.

#### V.O. FEMALE SOLDIER #1

"The training's been hard but we're prepared for whatever comes."

#### V.O. FEMALE SOLDIER #2

"We're fit and ready-to-go!"

#### NARRATOR V.O.

Today's active duty women are as fit as their male counterparts, and, not surprisingly, more fit than women in the general population. But unlike men or women civilians, women in the military face unique circumstances that can threaten their health as women - their reproductive health.

#### 2. Medical Provider On-camera.

#### **HEALTH PROVIDER #1**

"When you enter the military, life becomes a lot more complex. You find yourself out in the field or aboard ship where you can't keep clean like you usually do. Many females in the military are at an age and place where they have more intimate relationships that are also more intense. Some of the recent military conflicts have taught us a lot about what this means for readiness."

3. Desert Storm & Bosnia footage.

#### NARRATOR V.O.

During Desert Storm, a high percentage of sick calls for women were due to reproductive health problems such as infections and sexually transmitted diseases. (25.6% of diagnoses recorded). In Bosnia, 70% of the women found to be pregnant in country were pregnant before they arrived. While the military is committed to improving sanitary conditions and supplies to enhance readiness, the military woman must do her part, and ultimately, be responsible for her own reproductive health.

4. B-roll of field activities. It is clear that the activities are taking place away from normal facilities.

#### V.O. FEMALE SOLDIER #3

"My first field exercise shocked me. I didn't bring anything to clean myself with, and there was little water or privacy."

#### V.O. FEMALE SOLDIER #4

"I remember having to hold it in because there wasn't a time or place where I could go to the bathroom. Now I hear you can get sick just by not going often enough."

5. Senior Enlisted Woman #1 On-camera.

#### SENIOR ENLISTED WOMAN #1

"It's true. You want to be able to relieve yourself to keep the bacteria from building up and causing an infection. And it's not an option to stop drinking water! You also need to learn how to wash up and what to pack. This is the kind of information you need to know to reduce your health risk."

6. Related video of information resources (brochures, etc.), and woman talking to medical professional.

#### NARRATOR V.O.

The potential for hygiene-related problems can be reduced through preventive maintenance. A predeployment exam is a good opportunity to communicate your concerns and ask specific questions. At this exam, you also need to get adequate contraceptive supplies and have a pregnancy test if you have been sexually active. Learn how to help the professionals help you!

7. B-roll of men/women working together, social life, bar scenes, and family scenes.

#### V.O. FEMALE SOLDIER #5

"When I first got out of basic, I couldn't believe the buzz between the males and females. And the pressure! -- especially because there were so many more men than women. Even the 'plain Janes' were really getting involved."

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"Your social life goes from zero to 100 mph. It's like you're away from home and anything goes! Some don't handle it very well. They get involved with anyone and everyone, and it doesn't stop when they're in the field! I know some people think that since the military screens for AIDS you're OK if you sleep with someone on base."

8. Senior Enlisted Woman #2 On-camera.

#### SENIOR ENLISTED WOMAN #2

"AIDS is just one of many things you can get through sexual contact. I saw a survey that said that one in four military women gets a sexually transmitted disease. Some STDs can give you cervical cancer, and some can damage your organs so you can't ever get pregnant. A lot of single females having sex get pregnant, too. They don't realize how hard it is to raise a child, especially alone. The more sexually active you are and the less you know, the greater the chance. You can't just let things 'happen."

9. Anatomical graphics, contraceptives, and couple talking while alone.

#### NARRATOR V.O.

Taking control of your relationships begins with learning the basics – about disease and how it's transmitted through sex, about contraception for preventing disease and pregnancy. Learning how to talk with your partner about these issues is critical.

10. Senior Enlisted Woman #3 On-camera.

#### SENIOR ENLISTED WOMAN #3

"The answer is taking control, in your relationships and your health care. In the military you need to be an assertive health care consumer. Find the resources and make the best use of them. Talk to your health care provider honestly so you will get the care you need and deserve. Taking charge of your health lets you choose when you want to take on the responsibilities of family life. The military can be a great opportunity. Take advantage of it."

11. CD-ROM Menu screen. Various areas highlighted

#### NARRATOR V.O.

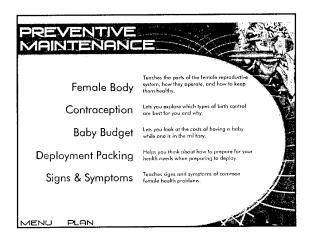
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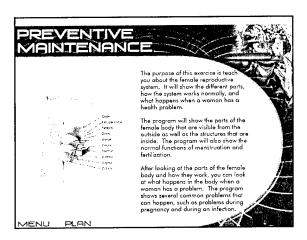
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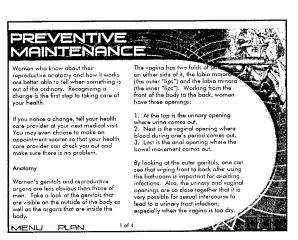
To get a broad introduction to the important issues, explore these areas. (Menu areas highlighted)

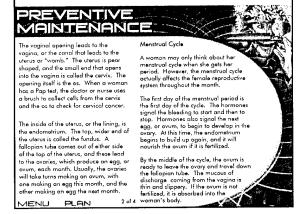
(Continues to a 2-minute segment on the disc and its navigation)

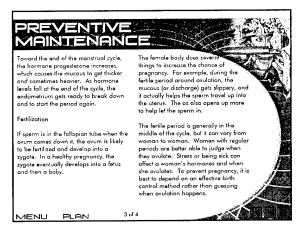


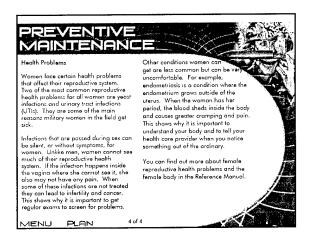


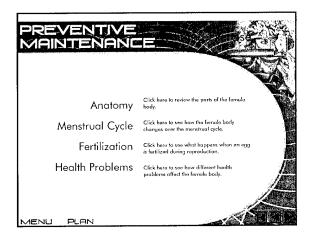


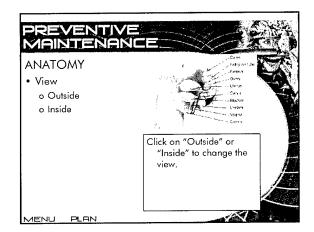


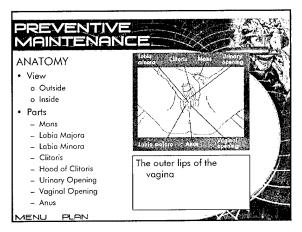


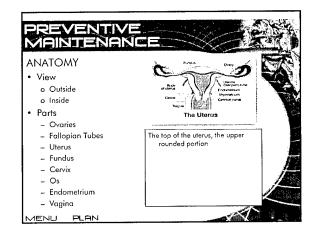


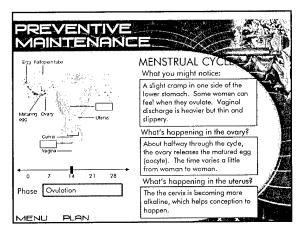


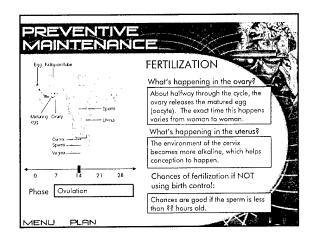


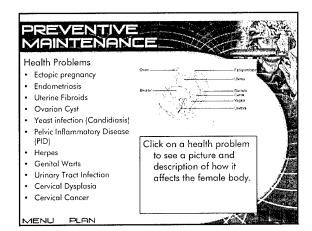


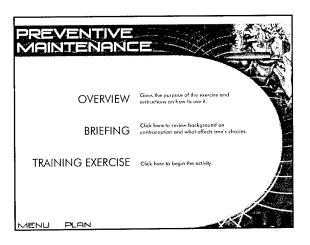














- · Need some art here.
- Suggestions:
  - Collage of bc methods
  - Photo of man & woman looking at each other
  - Photo of woman looking in mirror pensively.

The purpose of this exercise to about contraception, also called bin control or family planning. The exercise will also help you decide what method is best for you, given your health history and feelings about contraception.

Having children is a special and demanding part of life. Using contraception will help you be the one who decides if and when you become a

The Briefing will give you information on the different types of methods and how they work. The Training Exercise will ask you some questions about yourself to help you decide which method or methods may be right for you. You can decide not to answer any of the questions, but you will get better information if you answer them all.

MENU PLAN

### MAINTENANCE

This briefing talks about some things to think about when you decide on a method of birth control. It also gives general information on different groups of methods and detailed information on several specific methods.

#### Deciding On Contraception

Many types of birth control methods are available. To find one that fits your needs, you must think about many different issues.

First, you must consider your age and hoolth history. Some contraceptives are not recommended if you have certain health conditions. For example, you should not take birth control pills if you are older than 34 or have certain health

MENU PLAN

You will also want to think above will make using contraception easy coceptable to you. There is no perfect method, so choose one that you are able to use every time you have sex. Some common concerns include cost, convenience, and effectiveness. Some people are also concerned about their partner's reaction to birth control and how it affects romance when having sex. Others want to use a method that has few side effects.

If you are not in a steady relationship or have recently started one, you will also want to think about using condams as your birth control method or in addition to another method to reduce your risk of getting an STD. Even people who are in a long-term relationship may want to use condams, if there is any chance that their partners could have been unfaithful.

#### REVENTIVE MAINTENANCE

#### Barrier Methods

Barrier methods are contraceptives that use a physical barrier to stop sperm from reaching the egg. Some barrier methods are available in the drug store, like condams and female condams. Other barrier methods, like the diaphragm, must be prescribed by a doctor because it must be "fit" to your

Barrier methods must be put in place prior to sax, every time one has sex. Because of this, some people think that they are inconvenient and unromantic. Some people prefer barrier methods despite these drawbacks. They are fairly cheap, and they can help prevent sexually transmitted diseases and other infections. Some also like that barrier methods do not affect a woman's hormones, like birth control pills, so they have fewer side effects

Vaginal spermicides can be used with barrier methods to add a chemical barrier that keeps sperm from reaching the agg. These come in foam, cream, jelly, film, or ablet forms. Spermicides are not very effective for preventing pregnancy when used alone.

MENU PLAN 2 of 6

#### REVENTIVE MAINTENANCE

#### Harmonal Methods

Harmonal Methods
Birth control pills, Norplant, and
DepoProvera are all harmonal methods
of birth control. They work by putting
harmones in the woman's body that step
the production of her natural harmones.
This keeps the egg in the ovary from
developing, which steps ovulation. This
also prevents the lining of the uterus
from thickening, which means an egg
cannot implant in the uterus. Some of
the harmones also cause the mucus in
the cervix to build up and black sperm
from getting into the uterus.

Many women find harmonal methods to be easy to use because they only have to romember to take a pill each day or get a shot every 3 months. These methods are also very effective.

The biggest drawback with hormanal contraceptives is that they can cause several side effects and risks for other serious discoses, especially for older women. While some women have only good side effects like clear skin and relief from painful periods, others have symptoms that range from mild to severe. Mild symptoms include tiredness, weight gain, years infections, and breast tenderness. Severe side effects like migraines and depression should be reported to a doctors.

Sometimes changing the prescription and using another type of hormanal contraceptive solves problems with side effects. If a woman has problems, she should talk to her health care provider.

MENU PLAN

#### ZEVENTIVE NAINTENANCE

#### Medical Methods

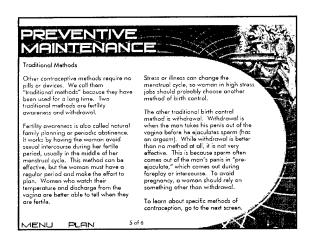
Medical methods of contraception are those that must be put into place by a doctor during an office visit or surgery. One type is an "intrauterine device," or IUDs which is inserted into the uterus. IODs which is inserted into the erevs. Some IUDs work by changing the lining of the uterus so an egg cannot attach to it. Others stop the sperm from moving toward the egg. Women should not use IUDs if they are having sex with more than one person or if they have not had any children.

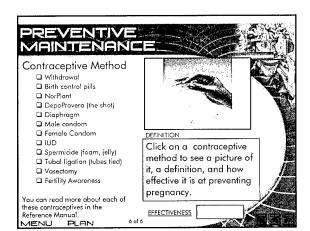
Another medical method is "surgical sterilization." Either men or women can be sterilized, and it works by blocking the path of the egg or the sperm.

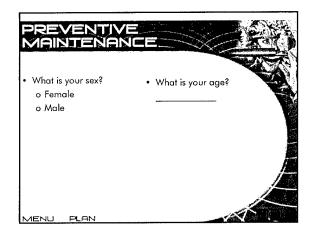
For women, sterilization is done throu For women, stantization is done throught a tubal ligation where the follopium tubes are cut or blocked off. This is often called "getting your tubes tied." Men can be startized through a medical procedure called a vasedomy. Here, the doctor seals or ties off the man's vas deferens, the tubes that allow the sperm to travel from the testicles to the penis.

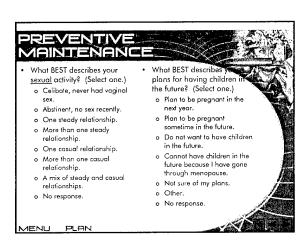
Sterilization is very effective in preventing pregnancy and only rarely fails.
However, sterilization should only be considered by people who do not want any more children because it is difficult and expensive to reverse through

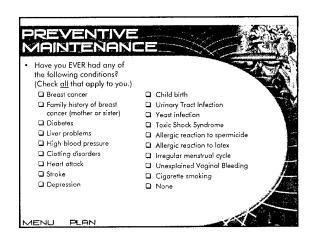
MENU PLAN

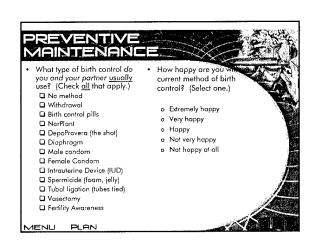


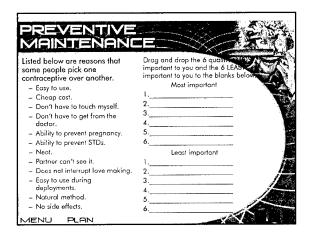


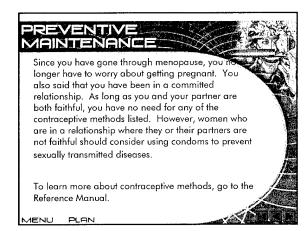


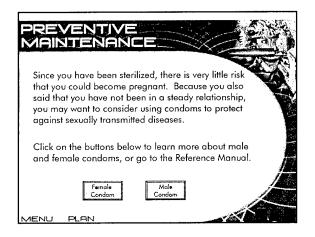


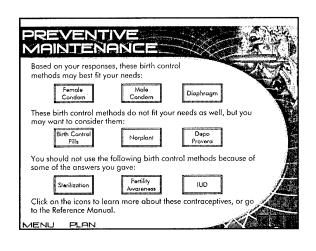


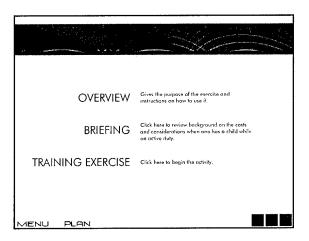


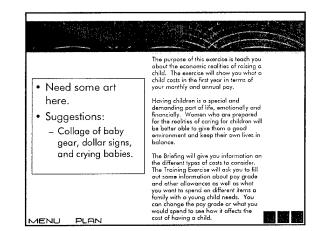














One of the main things that people forget to consider is the economic impact that a child will have on their lives. Having a baby brings many new costs, not just for the things the baby needs but also for the things that come with having a family. Before one has a baby, it is important to think about how one will afford to pay for all of these

MENU PLAN Parents must get many new items when they have their first child. A new baby needs furniture, such as a crib and high choir. The baby also needs a car seat and stroller so the parent can take the baby with them when they go places. Finally, there are angoing costs such as food, diapers, clothes, and toys. These items are continuously needed by children and get more expensive as children age.

Most new parents will need to decide what is the best way to get all of the things they need. Some might want the newest and nicost things for the new addition to the family. Because these things can be expensive, parents may need to cut cats. They can save maney by getting used clothing and toys or borrowing them from friends or family 1 of 5 members.

### Healthcare and Childcare Healthcare and childcare are two

Healthcare and childcare are two important issues for parents, and expensive ones at that. Both before and during pregnancy, women need to have good prenatal healthcare. These costs are generally covered by TRICARE. Once the boby is born, women may need to pay a little into TRICARE each year to cover family healthcare costs. This will cover the baby's well-baby check-ups.

Going to prenatal healthcare check-ups and well-baby check-ups cost more than money. They also mean a lot in terms of time away from work. Many babies also tend to get colds and minar infections when they are young, especially when they are young, especially when they are young, expecially when they are young, expecially when they apposed to other children in day care. This can mean even more time away from work.

Childcare is another important cost to consider when one has a child. Although many installations offer military childcare facilities offered by the military, these often fill up fast and have limited hours. Extended childcare for long hours, weekends, or time away on a deployment cost additional money.

Because a large amount of a new baby's time will be spent in the care of someone besides the parent, it is important that the parent finds childcare with which they are confortable and confident. Sometimes peace of mind means paying more money for better care.

Besides daily childcare, parents want to go out sametimes without the baby. Some parents share babysiting with other parents, or they will have to pay more for a babysitler.

PLAN

# Other Costs

The parents will also have more costs as The parents will also have more costs a they pay for such things as rent for a bigger place, car payments, and utilities. These costs can be very difficult to pay for women who are single mothers and have to move out of the barracks and set up a household.

Issues for Military Parents

Being in the military presents special considerations when it comes to becoming a parent. Those who are on active duty must also think about what active duty must also think about what they will do if unexpected situations come up, such as deployment, travel, or the need to move. Deployment is an issue that must be considered before one has a child. If one porent is not in the military, the civilian parent can care for the child when the other partner is deployed. However, single mothers or a dual-military parents face important questions. Who will take care of their child while thay are away? If how are they going to pay for this care?

The military has guidelines that help active duty parents prepare for childcare when they are deployed. These instructions detail what should happen if they are assigned to an area where their child is not authorized or if they must leave their child when they are deployed. This plan should be considered before one becomes pregnant. See a sample "Letter of Instruction" on the next page of the briefing.

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#### Sample Letter of Instruction

I have made the following arrangements for the care of my dependent family member(s) in the event that I am not member(s) in the event that I am not available to provide the proper care due to absence for military service or emergency which would require me to be away from them for an extended period of time.

My child care provider has been given legal authority to care for my children until the lang-term guardian can arriv to care for them in this location or transport them to the guardian's residence where they will remain until my return.

I have established a special account in our bank or made other appropriate arrangements to cover the expenses of the escott/auardian the escort/guardian.
MENU PLAN

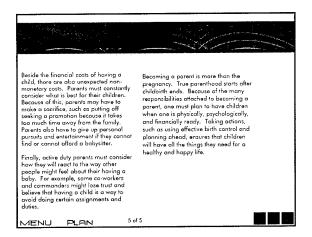
Should it be necessary to contact any of ... persons involved in the transportation, support or care for my children, the following information is provided:

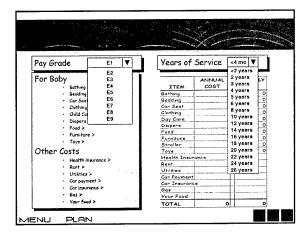
- Name, address, and phone number of designated escort.
- Name, address, phone number, relationship to sponsor of children of long-term guardian.

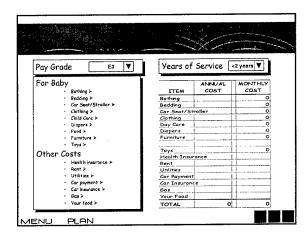
  Name, address, phone number,
- relationship to sponsor of children of short-term child care provider

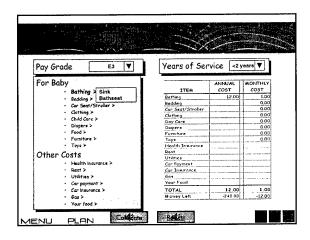
Should it be necessary to settle my estate, my will and other important documents can be located at:

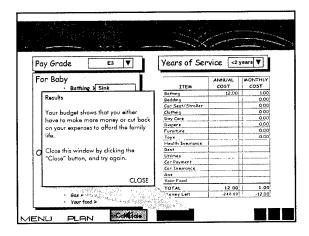
. . . . .

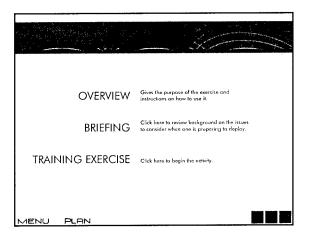


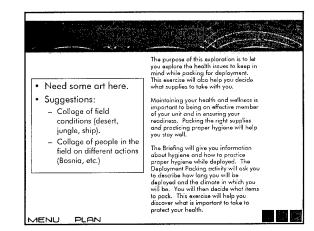














Taking responsibility for maintaining your health and physical fitness is important key to being a productive member of your unit. This briefing gives information about hygiene practices and how to practice good hygiene when deployed. The briefing also talks about what supplies women can bring with them to care for their health in the field.

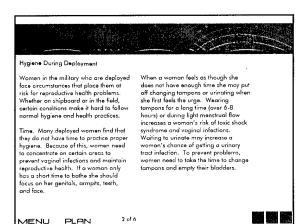
#### General Hygiene

Hygiene includes keeping the vaginal opening dry, wearing cotton underwear, not wearing tight filting pants or pantyhose, drinking at least 8 glasses of water a day, urinating after sex, and washing underwear with mild soop. All of these practices help keep the vaginal orac clean and dry and prevent bacteria from causing an infection.

Women should also wipe properly offer using the bathroom. Be sure to wipe from front to back. Wiping from back to front brings bacteria from the anus to the vagina and may cause infection.

Wamen should not use scented products and douching. Scented products tampons, sanitary napkins, wipes, soaps, sprays, and tollet paper—should be availed because they close irritate the vagina. Wamen should also avoid douching because it can aleatry the protective bacteria in the vagina. Douching also can mask symptoms of a vaginal infaction. If a wamen chooses to douche, she should limit it to once a week or less and use a vinegar and water solution. Women should not use scented products

MENU PLAN



tack of supplies. Women need to pack enough supplies and clean clathes while they are deployed. They need supplies for keeping clean, dealing with their menstrual paried, and preventing pregnancy. They also need adequate pregnancy. They also need adequat supplies of prescription medications.

Wamen should think about the length of the deployment when packing. If they do not, they are likely to run out of do not, they are likely to run out of supplies such as tempons or sanitary napkins, mild soap, condoms, and birth control pills. Military units often do not stock many supplies, and some may have few supplies for women's health needs. Running out of some supplies can put a women's reproductive health in jeopardy and put her at risk of an unintentional pregnancy.

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Problems keeping clean and dry. The type of environment, including geography, weather, housing, and sanitary facilities all have an impact on health. The terrain and weather can be extreme. It can be very hot or very cold, extremely damp or overly dry. All of these conditions affect the way a woman cares for herself while deployed.

In other situations, housing and sanitary facilities are primitive, and women may decide to put off cleaning. This allows bacteria to accumulate, and can lead to

Problems drinking enough water. Some women try to avoid drinking water so that they do not have to urinate as often. In dry environments this puts the woman at risk of sunstrake and heatstrake, which will affect her job obilities and her health.

Types of Supplies

As noted before, women who deploy need supplies for preventing infection handling the monthly menstrual perio and preventing pregnancy.

Preventing infections. Keeping clean and dry is important for preventing infection. A waman should have enough underwear or bring panty liners to extend the use of her underwear. Scented panty liners should be avoided because they can irritate the vagina.

Plain water works best for cleaning up. Some women think wet wipes are helpful for cleaning the vagina, but others think they make cleaning more difficult. Women may want to expariment with wet wipes before deploying to see if they like them or not.

Women can use a device called a "urinary director" to urinale without removing their pants. Women who have little privacy in certain field conditions may want to bring one of these devices so they do not have to delay urinating.

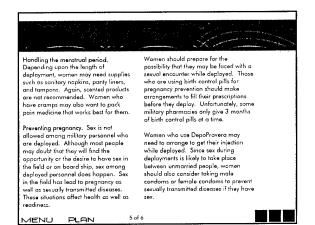
Military women should also think about what diseases they might be exposed to while deployed. The military will provide the necessary immunizations, but each woman needs to consider what she needs to protect her health and wellness.

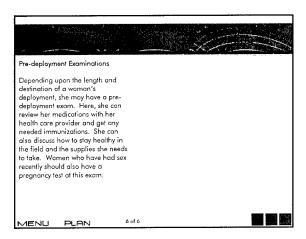
For example, women who are prone to yearst infections should bring yearst infection and infection medicine. Stress can herpes to break out in people who have the disease, so women who have herpes may want to bring prescription medication in case they break out when deployed.

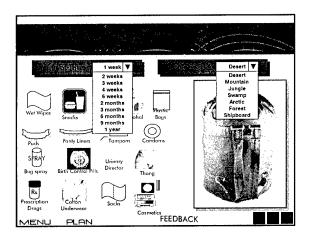
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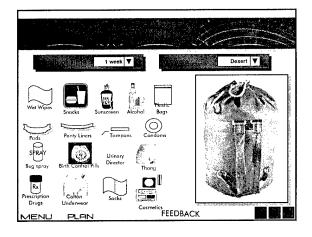
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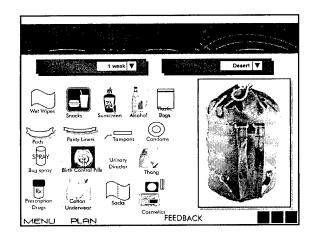
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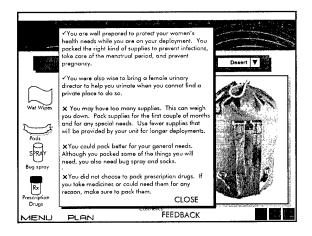


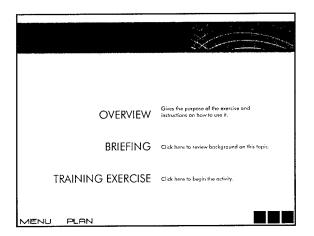


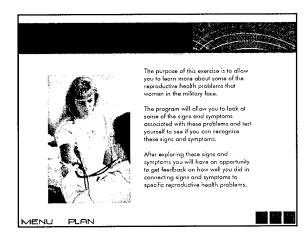


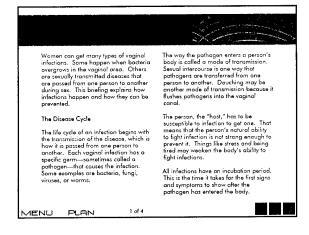


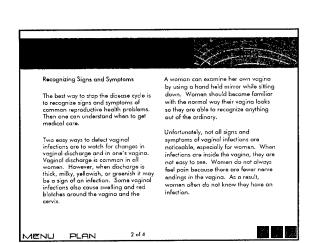


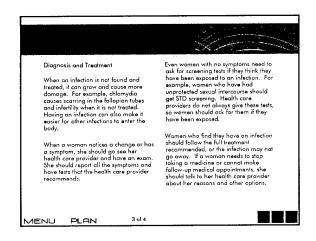


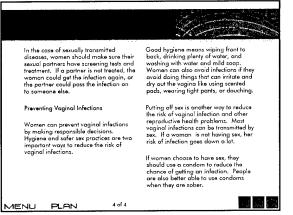




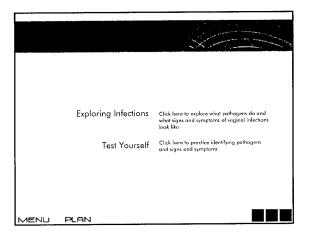


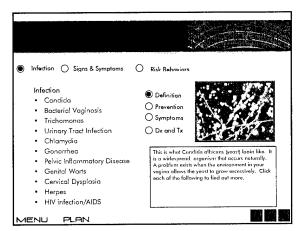


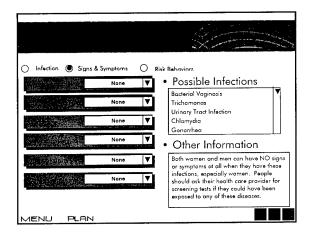


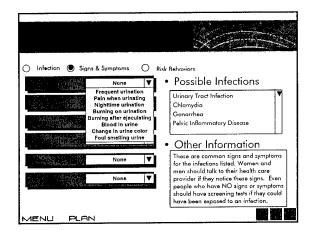


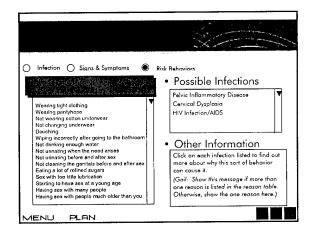
# Appendix D: Basic Training Exercise Storyboards









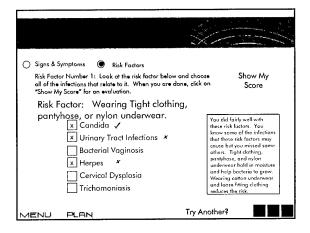


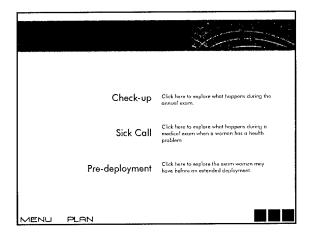
Signs & Symptoms Risk Factors Sign and Symptom Number 1: look at the sign or symptom below and choose all of the infections that relate to this sign or symptom. When you are done, click on "Show My Score" for an evaluation.	Show My Score
Sign and Symptom: Pain on urination.	
MENU PLAN	3 2 3

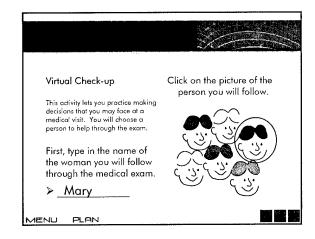
# Appendix D: Basic Training Exercise Storyboards

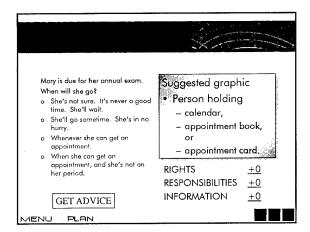
Signs & Symptoms  Risk Factors Sign and Symptom Number 1: look at the sign or a below and choose all of the infections that relate to symptom. When you are done, click on "Show My S on evaluation.	this sign or
Sign and Symptom: Burning on urination.  X Genorrhea  X Genital Warts  X Urinary Tract Infection  X Trichomoniasis  X Candida  X	You know some of the infections that cause burning on uninnellate; but you missed some others. Burning on unintation is a symptom of Gonorrhea, Chlanydia, Uninney Tract Infections, Trichomoniosis, or Candida.
MENU PLAN	Try Another?

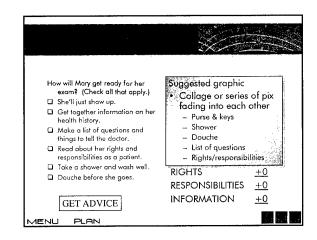
Ž.	
Signs & Symptoms Risk Factors	
Risk Factor Number 1: Look at the risk factor below and choos all of the infections that relate to it. When you are done, click a "Show My Scare" for an evaluation.	
Risk Factor: Wearing Tight clothing, pantyhose, and nylon underwear.	
x Candida	
x Urinary Tract Infections	
Bacterial Vaginosis	
x Herpes	
Cervical Dysplasia	
Trichomoniasis	
MENU PLAN	

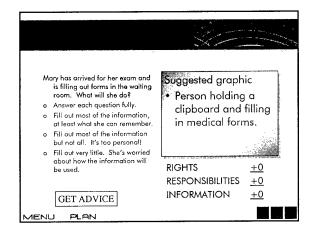


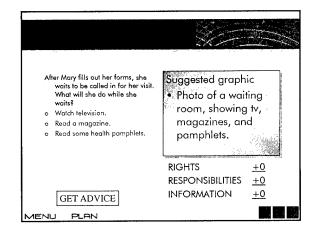


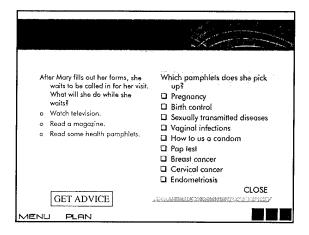


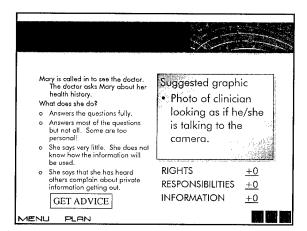


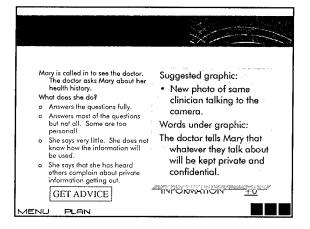


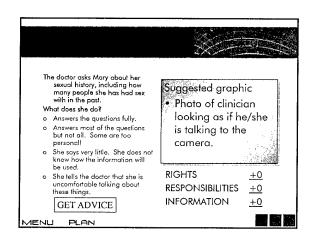


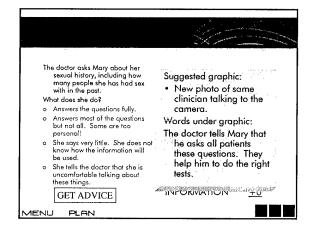


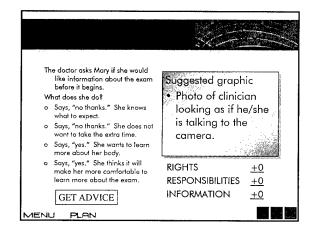


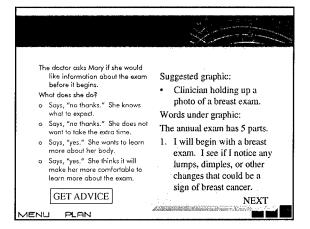


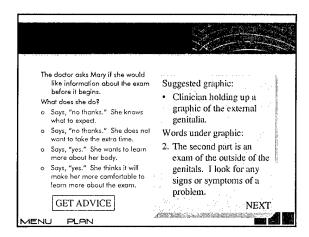


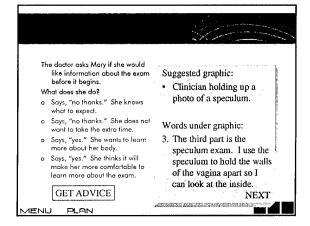


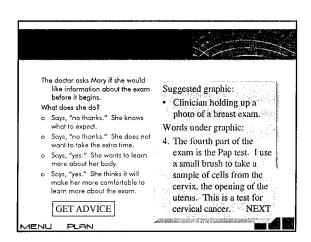


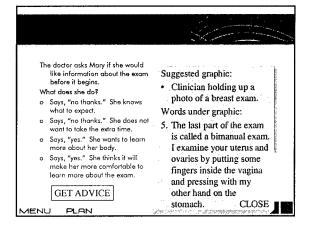


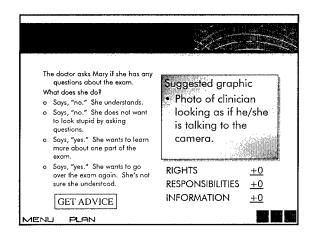


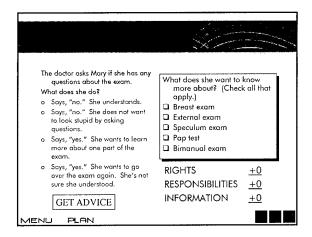


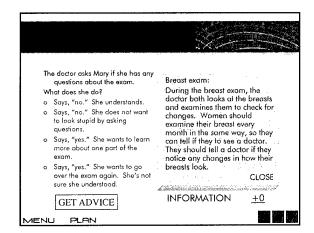


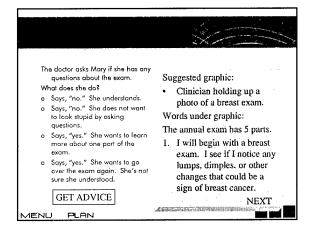


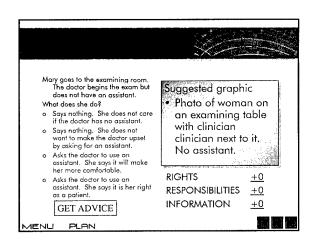


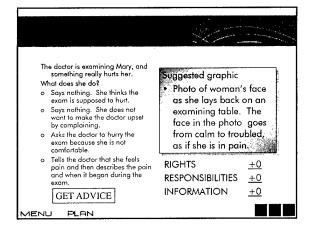


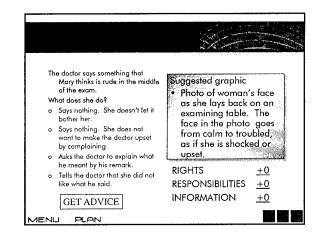


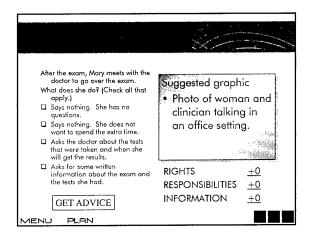












## **APPENDIX B: Efficacy Test Instrument**

## Health Needs of Enlisted Women in the Military

The purpose of this survey is to collect information about health knowledge, attitudes, and behavior of enlisted women in the Army, Navy, and Air Force. We are interested in understanding what enlisted women in the military know, think, and do regarding their reproductive health.

Your participation in answering these questions is voluntary, and may help other enlisted women receive improved health care and educational services. This is the first of two surveys you will be asked to complete. The second one will be given to you after your medical exam. The purpose of this study is to evaluate a computer program designed to help women in the military learn about reproductive health, and better care for themselves at home and in the field.

These surveys contain several questions about sensitive issues such as sexual behavior and feminine hygiene practices. We realize it may make some people uncomfortable to answer these types of questions. Some people may feel that they should answer a certain way, even if it is not what they actually think or do. Please be honest, because your thoughts, feelings, and actions are very important for the results of the study. There is no penalty for leaving a question blank, but we encourage your full participation so that the data will be complete and representative.

Some people feel uncomfortable answering sensitive questions on a survey because it is written. Your answers will not be linked to any personal information about you. This survey will have a unique numerical identifier that will be linked to the second survey you complete, so we can make comparisons. Your answers will be combined with the answers of hundreds of other enlisted women in the military who complete this survey. No individual enlisted women will be identified when we present the results of the survey, so please answer every question honestly.

Please, do not write your name on the survey.

Many thanks for your cooperation and help with this study.

- I. Demographics Mark only one answer to each question. 1. How old are you? \_\_\_\_\_ 2. In what branch of the armed services do you serve? a. Army b. Navy c. Air Force d. Marine Corps e. Other 3. What is your grade? a. E1-E2 b. E3-E4 c. E5-E6 d. E7-E9 e. I am an officer 4. How do you describe yourself? a. White, not Hispanic b. Black, not Hispanic c. Hispanic or Latino d. Asian or Pacific Islander e. American Indian or Alaskan Native f. Other (specify) 5. What is your marital status? a. Single, never married b. Living with significant other c. Married d. Legally separated e. Divorced f. Widowed What is the highest education level you have completed and received credit for? 6. a. Highschool diploma b. GED c. Associate's degree d. Vocational degree e. Some college f. Bachelor's degree g. Graduate degree II. Knowledge Read each of the following questions and select the answers you think are correct. You are NOT expected to know all the correct answers. Mark only one answer. At what point in the monthly reproductive cycle is a woman most likely to become pregnant? 7. a. Right before her period b. During her period c. Right after her period d. Mid-cycle e. I don't know 8.
- Who is more likely to get an STD infection because of how their bodies are structured?
  - a. Men
  - b. Women
  - c. They are equally likely
  - d. I don't know

- 9. What is the BEST way to clean the vagina?
  - a. Using a vinegar and water douche
  - b. Using vaginal deodorants
  - c. Letting normal secretions cleanse the vagina
  - d. Using deodorant soap
  - e. I don't know
- 10. What is the BEST way to clean the vagina in the FIELD?
  - a. With scented deodorant sprays
  - b. With disposable wipes
  - c. With water
  - d. There is no way to clean in the field.
  - e. I don't know
- 11. When you are in the field and need to urinate (pee), what should you do?
  - a. Go immediately, or as soon as possible
  - b. Hold it until you really have to go
  - c. Hold it until you come to a clean bathroom
  - d. Stop drinking water so you do not have to go as much
  - e. I don't know
- 12. Which of the following is the BEST way to prevent pregnancy?
  - a. Use condoms
  - b. Withdrawal (pull out)
  - c. Birth control pills
  - d. Douching
  - e. I don't know
- 13. What is the most common reason that birth control fails?
  - a. It is used incorrectly
  - b. A method does not work
  - c. The directions are bad
  - d. Women pick a type that they don't like
  - e. I don't know
- 14. How can a woman be sure she has NO sexually transmitted diseases (STDs)?
  - a. When she has no symptoms of itching or burning
  - b. When she has a normal Pap test
  - c. When her doctor does not notice any problems
  - d. When screening tests show no infection
  - e. I don't know
- 15. What type of condom is best at reducing the risk of getting an STD?
  - a. Lambskin
  - b. Polyurethane
  - c. Latex
  - d. Condoms do not reduce the risk.
  - e. I don't know
- 16. The risk of an STD infection is increased by
  - a. Having one steady relationship
  - b. Having sex when intoxicated
  - c. Having sex when dirty
  - d. Using birth control
  - e. I don't know

- 17. What medical service DO women get when they have an annual pelvic exam at a military facility?
  - a. Pregnancy test
  - b. Screening for STDs
  - c. Urine test
  - d. Pap test
  - e. I don't know
- 18. What medical service SHOULD military women get when they have a pre-deployment exam?
  - a. Pregnancy test
  - b. Screening for STDs
  - c. Urine test
  - d. Pap test
  - e. I don't know

#### III. Attitudes

We are interested in how you feel about specific health concerns and behaviors that are important for enlisted women in the military. Please answer these questions as you really feel. There are no right or wrong answers.

Please mark on a scale of 1 to 9 how much you agree or disagree with the following statements. 9 = "strongly agree", 5="neutral", and 1="strongly disagree".

		strongly disagree				neutral				strongly agree
19.	Active duty females are MORE likely to have an unplanned pregnancy than civilian females.	1	2	3	4	5	6	7	8	9
20.	When active duty females get pregnant, it's MORE likely to get out of duty rather than an "unplanned"	1	2	3	4	5	6	7	8	9
21.	pregnancy. Using <b>birth control</b> makes love making better.	1	2	3	4	5	6	7	8	9
22.	<b>Birth control</b> is easy to get in the field.	1	2	3	4	5	6	7	8	9
23.	<b>Birth control</b> is easy to use EVEN IF one is drinking or using drugs.	1	2	3	4	5	6	7	8	9
24.	Birth control is easy to use EVERY TIMES one has sex.	1	2	3	4	5	6	7	8	9
25.	Men think using <b>birth</b> control is important.	1	2	3	4	5	6	7	8	9
	Women think using <b>birth</b> control is important.	1	2	3	4	5	6	7	8	9
27.	My health care provider thinks using <b>birth control</b> is important.	1	2	3	4	5	6	7	8	9
28.	My friends think using <b>birth control</b> is important.	1	2	3	4	5	6	7	8	9
29.	My commander thinks using birth control is important.	1	2	3	4	5	6	7	8	9

								DAIVIL	) 17 <del>-9</del> 0-D-	·DU9 I
30.	Active duty FEMALES are MORE likely to get an STD than civilian females.	1	2	3	4	5	6	7	8	9
31.	Active duty MALES are MORE likely to get an STD than civilian males.	1	2	3	4	5	6	7	8	9
32.	<b>Condoms</b> make love making better.	1	2	3	4	5	6	7	8	9
33.	Condoms are easy to get.	1	2	3	4	5	6	7	8	9
34.	<b>Condoms</b> are easy to get in the field.	1	2	3	4	5	6	7	8	9
36.	<b>Condoms</b> are easy to use EVERY TIME one has sex.	1	2	3	4	5	6	7	8	9
37.	Women think using condoms to prevent STDs is important.	1	2	3	4	5	6	7	8	9
38.	Men think using <b>condoms</b> to prevent STDs is important.	1	2	3	4	5	6	7	8	9
39.	My health care provider thinks using <b>condoms</b> to prevent STDs is important.	1	2	3	4	5	6	7	8	9
40.	My friends think using <b>condoms</b> to prevent STDs is important.	1	2	3	4	5	6	7	8	9
41.	My commander thinks using <b>condoms</b> to prevent STDs is important.	1	2	3	4	5	6	7	8	9
42.	Talking to <b>health care providers</b> about birth control and condoms is easy	1	2	3	4	5	6	7	8	9
43.	Talking to <b>sexual partners</b> about birth control and condoms is easy.	1	2	3	4	5	6	7	8	9
44.	Talking to sexual partners about <b>STDs</b> is easy.	1	2	3	4	5	6	7	8	9
45.	Talking to sexual partners about the <b>pregnancy concerns</b> is easy.	1	2	3	4	5	6	7	8	9

#### IV. Health Status and Practices

The first set of questions ask about your health and visits to the women's health clinic. The next set of questions asks about your sexual behavior and birth control preferences. These types of questions sometimes make people feel uncomfortable. Some people feel the need to answer differently from what they actually do. Please answer the questions as honestly as you can. This may help other enlisted women with their health care needs and concerns.

- 46. How would you rate your overall health?
  - a. Excellent
  - b. Good
  - c. Fair
  - d. Poor
- 47. Do you have any of the following problems?
  - a. Poor diet
  - b. Trouble sleeping
  - c. Job stress
  - d. Family stress
  - e. General stress
- 48. Have you EVER had any of the following conditions?
  - a. Irregular periods
  - b. Painful periods
  - c. Heavy periods
  - d. Unexplained vaginal bleeding
  - e. Menopause
  - f. Diabetes
  - g. Breast cancer
  - h. Cervical cancer
  - i. Abnormal Pap test
  - i. Urinary tract infection
  - k. Yeast infection
  - I. Unplanned pregnancy
  - m. Sexually transmitted disease
  - n. None
  - o. I don't know
- 49. Has your mother or a sister ever had breast cancer?
  - a. Yes
  - b. No
  - c. I don't know
- 50. Are you currently pregnant?
  - a. Yes, and it is a planned pregnancy.
  - b. Yes, and it is not a planned pregnancy.
  - c. No, I'm not pregnant.
  - d. I don't know
- 51. When did you have your last pelvic exam that included a Pap test?
  - a. Never
  - b. In the last year
  - c. In the last 2 years
  - d. In the last 3 years
  - e. More than 3 years ago
  - f. I don't know

- When did you last have your breasts examined by a doctor or nurse?a. Neverb. In the last year
  - c. In the last 2 years
  - d. In the last 3 years
  - e. More than 3 years ago
  - f. I don't know
- 53. When did you have your last mammogram?
  - a. Never
  - b. In the last year
  - c. In the last 2 years
  - d. In the last 5 years
  - e. More than 5 years ago
  - f. I don't know
- 54. How often do you examine your breasts?
  - a. Never
  - b. Monthly
  - c. A few times a year
  - d. Yearly
  - e. Less often than once a year
  - f. No set time
  - g. I don't know
- 55. How often do you have a pelvic exam before you go on a deployment?
  - a. I have never been deployed.
  - b. Always or nearly always
  - c. Most of the time
  - d. Half the time
  - e. Some of the time
  - f. Rarely
  - g. Never
- 56. Which of the following supplies do you pack to take on deployments to prepare for your health needs?
  - a. Cotton underwear
  - b. Birth control pills
  - c. Condoms
  - d. Unscented tampons
  - e. Scented tampons
  - f. Unscented pads/panty liners
  - g. Scented pads/panty liners
  - h. Unscented wet-wipes
  - i. Scented wet-wipes
  - i. Yeast infection medication
  - k. Female urinary director
  - I. None of these
  - m. I have never been deployed
- 57. Do you wipe from FRONT to BACK after using the bathroom?
  - a. Yes, always
  - b. Yes, sometimes
  - c. No, never
  - d. No response
- 58. Do you ever stop drinking water in the field so you won't have to go to the bathroom?
  - a. Yes
  - b. No

- 59. How often do you douche?
  - a. Never
  - b. Rarely (a few times)
  - c. Occasionally (every few months)
  - d. Regularly (once a month)
  - e. Often (more than once a month)
- 60. Which of the following products do you use?
  - a. Scented tampons
  - b. Scented sanitary pads
  - c. Scented wipes
  - d. None of these
- 61. Have you ever had sex (penis-vagina intercourse)?
  - a. Yes
  - b. No
- 62. Have you ever had oral sex?
  - a. Yes
  - b. No
- 63. Have you ever had anal sex?
  - a. Yes
  - b. No

#### If you have had any type of sex, skip ahead to number 67

- 64. If you begin to have sex, what type of birth control will you use? (Check all that apply.)
  - a. No method
  - b. Withdrawal
  - c. Birth control pills
  - d. NorPlant
  - e. DepoProvera (the shot)
  - f. Diaphragm with spermicide
  - g. Male condom
  - h. Female Condom
  - i. Intrauterine Device (IUD)
  - j. Tubal ligation (tubes tied)
  - k. Vasectomy
  - I. I don't know.
- 65. Will you use birth control EVERY TIME you have sex?
  - a. No.
  - b. Yes, I always will.
  - c. I don't know
- 66. Will you use a condom EVERY TIME you have sex?
  - a. No.
  - b. Yes, I always will.
  - c. I don't know

Please skip ahead to Section V, number 71.

- 67. What type of birth control do you usually use? (Check all that apply.)
  - a. No method
  - b. Withdrawal
  - c. Birth control pills
  - d. NorPlant
  - e. DepoProvera (the shot)
  - f. Diaphragm with spermicide
  - g. Male condom
  - h. Female Condom
  - i. Intrauterine Device (IUD)
  - j. Tubal ligation (tubes tied)
  - k. Vasectomy
  - I. I don't know.
- 68. Do you use birth control EVERY TIME you have sex?
  - a. No, and I don't plan to in the future.
  - b. No, but I want to.
  - c. No, but I plan to start to soon.
  - d. Yes, I do now.
  - e. Yes, I always have.
  - f. No response
- 69. What best describes your sexual activity in the past year?
  - a. Abstinent
  - b. One steady relationship
  - c. More than one steady relationship
  - d. One casual relationship
  - e. More than one casual relationship
  - f. A mix of steady and casual relationships
  - g. No response
- 70. Do you use a condom EVERY TIME you have sex?
  - a. No, and I don't plan to in the future.
  - b. No, but I want to.
  - c. No, but I plan to start soon.
  - d. Yes, I do now.
  - e. Yes, I always have.
  - f. No response
- V. Health Education & Resources

We are interested in how you feel about the health information and resources that are available to you in the military. Please answer honestly.

- 71. Which health topics do you want to know more about? (check all that apply.)
  - a. I know all I need to know
  - b. Pelvic exams
  - c. Pregnancy prevention
  - d. Birth control
  - e. STD/HIV prevention
  - f. Prevention of vaginal infections
  - g. Personal hygiene
  - h. Menstrual cycle
  - i. Other
  - i. None

Where do you go when you want information about your sexual health? (check all that apply.) 72. a. Health clinic b. Pharmacy Telephone hotline d. Library Internet e. Newspapers/magazines f. g. Television h. Other None i. How easy is it to talk to your health care provider(s) when you want information about your 73. sexual health? very difficult somewhat neutral somewhat verv difficult easy easy 74. Who would you go to for help if you had a sexual health concern (suspected pregnancy, STD, etc.)? (check all that apply.) a. Friend b. Parent Sibling C. d. Spouse/significant other Your commanding officer Health care provider (nurse, doctor) g. Health educator/instructor h. Other\_ How easy is it to talk to your health care provider(s) about your sexual health concerns? 75. very somewhat neutral somewhat very difficult easv easy difficult How important is it to take time out of your daily work duties to do the following: (please circle only one response) Not Somewhat Neutral Important Very important important important 76. Get an annual women's 5 4 health exam. 1 2 3 77. Get medical care when you 2 3 4 5 1 notice a symptom that may be a health problem. 78. Go to follow-up 1 2 3 4 5 appointments to get treatment for a health problem.

Many thanks for your time completing this survey. You have been very helpful!

2

1

3

4

5

79. Get medicine and take it as

provider.

prescribed by a health care

## APPENDIX C: INFORMED CONSENT LETTER

<u>Project Title</u>: CD-ROM Technology to Increase Appropriate Self-Care and Preventive Behaviors Among Enlisted Women

You are asked to participate in a research study conducted at the (insert Uniform Services University of the Health Sciences, Walter Reed Medical Center, Malcolm Grow Medical Center, or National Naval Medical Center) by Dr. Nancy Atkinson, Ph.D. (Civilian Principal Investigator) at the Department of Health Education, University of Maryland and by Dr. Evelyn Lewis, M.D. (Military Principal Investigator) at the Uniformed Services University of the Health Sciences (USUHS).

## **Purpose:**

The purpose of this research is to test the effectiveness of an interactive computer-based educational program for enlisted Army, Navy, and Air Force women. The results of the study will be used to assess the usefulness of these materials in educating enlisted women about their health. This study is funded by the Department of Defense, U.S. Army Medical Research and Materiel Command (USAMRMC). The University of Maryland, College Park, is conducting the research study in conjunction with the Uniformed Services University of the Health Sciences.

This study is important because the number of women in the U.S. Armed Forces is increasing and the Department of Defense is concerned about their health needs. Many studies are being done about the unique health concerns of women in the military. Statistics show that unintended pregnancies, sexually transmitted diseases (STDs), and common preventable gynecological conditions (such as vaginitis) warrant immediate attention by both enlisted women and health care providers.

#### **Procedure:**

Enlisted women using the gynecological clinics at Walter Reed Army Medical Center, National Naval Medical Center, Malcolm Grow Medical Center, and USUHS are invited to volunteer for this study. We expect to enroll 528 enlisted women who equally represent the Airforce, Army, and Navy. The whole study has taken 5 years, but your participation will be limited to reviewing the educational materials and/or completing a series of questionnaires during just one medical visit.

During your medical visit, we will assign you to one of two study groups. If you get assigned to one of the groups, you will fill out a questionnaire, take part in educational activities using a computer, and fill out another questionnaire after your exam. If you get assigned to the other group, you will fill out a questionnaire right before your exam and one right afterwards. Your assignment to either of these two groups will be decided completely by chance.

All of these activities will take place in the same clinic where you get your exam. Each questionnaire should take about 15 minutes to fill out. Completing the educational activities on the computer will take 30 to 45 minutes. Altogether, the most time you would spend volunteering is 1 1/2 to 2 hours. Besides your time, there are no costs to you for participating in the study.

Initials	. Date	

The two questionnaires will ask about your knowledge of basic female body functions, what you think women need to know about their health, what you would like to learn about health, and your experiences with military health care. Finally, the questionnaire asks for your opinion about using a computer program to educate military women and whether you think it is a good idea.

This research is not designed to help you personally. The researchers hope to learn more about women's health, particularly the unique issues faced by women in the military. By volunteering for this study, you will receive information about your health, and you may learn ways to help protect your health.

#### **Potential Risks and Confidentiality**

There are no foreseeable risks to you for participating in this study. Your name will not be associated with any other personal information on the questionnaire. A unique identification number will be used for each woman enrolled in the study, so information you provide on the questionnaire is anonymous. Only the principal investigators will be able to see the information that links your responses to personal information. At the completion of this survey, the record linking your name with your identification number will be destroyed.

All data and medical information obtained about you, as an individual, will be considered privileged and held in confidence; you will not be identified in any presentation of the results. Complete confidentiality cannot be promised to subjects, particularly to subjects who are military personnel, because information bearing on your health may be required to be reported to appropriate medical or command authorities. It should be noted that representatives of the U.S. Army Medical Research and Materiel Command are eligible to review research records as a part of their responsibility to protect human subjects.

#### Medical Care for Research Related Injury

You are authorized all necessary medical care for injury or disease which is the proximate result of your participation in this research. Other than medical care that may be provided there is no other compensation available for participation in this research study; however, this is not a waiver or release of your legal rights.

In the event of a research related injury, please immediately contact one of the investigators listed below. If you have any questions about the research, please feel free to contact the investigators as well.

#### **Rights of Research Subjects**

Your participation in this research is entirely voluntary. If you choose not to participate, that will not affect your relationship with <enter appropriate study site>, your right to health care or other services to which you are otherwise entitled. You are free to ask questions and/or to withdraw from the study at any time without penalty, and without any questions asked of you. You are not waiving any legal claims, rights, or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, you may contact one of the investigators listed below.

Initials	Date	

# **Contact Information for Principal Investigators**

Nancy L. Atkinson, Ph.D. (civilian investigator) Department of Health Education Suite 2387 Valley Drive University of Maryland College Park, Maryland 20742-2611 301.405.2522 na31@umail.umd.edu

Evelyn L. Lewis, M.D., M.A., CAPT, MC, USN (military investigator)
Department of Family Practice
Uniformed Services University of the Health Sciences
4301 Jones Bridge Road
Bethesda, MD 20814-4799
301.295.9465 elewis@usuhs.mil

#### Signature of Research Subject

I have read all the information provided above. I have been given an opportunity to ask questions, and all of my questions have been answered to my satisfaction. I state that I am at least 18 years of age and I wish to participate in the program of research described above. I have been given a copy of this form.

Printed Name of Study Partic	:ipant:								-
Signature of Study Participar	ıt:				.,				
Date:									_
Signature of Witness My signature as witness cert voluntary act and deed.	ifies that the	subject	signed	this	form	in my	presence	as	her
Name of Witness:									
Signature of Witness:									
Date:									
(same as subject's)									

## **APPENDIX D: Information Paper for Potential Co-Investigators**

Study: CD-ROM Technology to Increase Appropriate Self-Care and Preventive

Behaviors Among Enlisted Army and Navy Women

#### **Background**

The project "CD-ROM Technology to Increase Appropriate Self-Care and Preventive Behaviors Among Army and Navy Women" was funded as part of the Defense Women's Health Initiative. The purpose of the study is to study and address the reproductive health education needs of enlisted women. Not only is the ability of each female soldier to protect and control her reproductive health essential to military readiness, it is important for these women's quality of life.

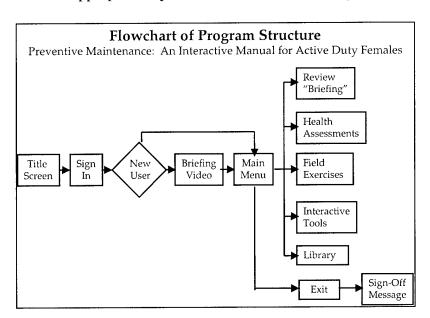
We are currently developing the intervention as well as preparing for the efficacy study. Preparations for the efficacy study include 1) identifying co-investigators at Washington DC area installations to help coordinate field testing of the application, and 2) developing evaluation instruments.

#### **Intervention Design and Development**

The overall goal of the intervention is to promote military readiness by enhancing enlisted women's self-care and care-seeking behavior for their reproductive health.

The key goals of the intervention are:

- to increase understanding of reproductive health,
- to increase their ability to be assertive and responsible for their health and well-being
- to increase communication skills, and
- to increase appropriate reproductive health care seeking.



## **Efficacy Study**

The intervention will be tested at the medical facilities in the Washington DC metropolitan area where military women, regardless of service, are likely to go (Walter Reed, Naval Hospital, and Malcolm Gro). However, equivalent numbers of women in the Army, Navy, and Air Force will be recruited for participation in the study. Women will be randomized into experimental and control conditions upon arrival at their annual examination that will allow us to examine the outcome measures by intervention. The experimental group will use the intervention and the control group will receive usual care. Subjects will complete a knowledge-attitudes-practices (KAP) survey pre-intervention and post-intervention, and data collection will take place for approximately 6 months.

	EXPERIMENTAL	CONTROL
Army/ Navy/ Air Force	RY <sub>0</sub> XY <sub>1</sub>	$R Y_0 \sim X Y_1$
X=inte	ervention, ~X=no intervention, Y	<sub>0</sub> =pre-measure, Y <sub>1</sub> =post-measure

## **Role of Co-Investigators**

In order to conduct the efficacy test, we need the assistance of military medical care providers working in the facilities where we will recruit enlisted women. As a Co-Investigator, the clinician will be asked to assist us in the following activities:

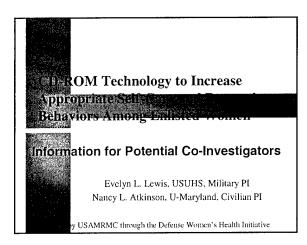
- Facilitating IRB clearance at the medical facility.
- Retaining a private/semi-private area in which to set up computer equipment at the medical facility.
- Helping to recruit enlisted women into the study, either women attending medical visits or volunteers.
- Facilitating access to the military medical facility for research assistants.

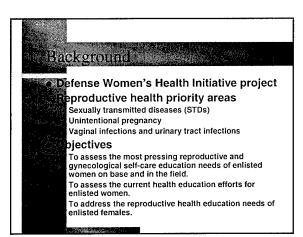
We can make a member of the research team available to manage data collection from subjects prior to and following the intervention via a paper and pencil questionnaire, or the Co-Investigator can assign staff to assist in this process. Whoever manages data collection will also have to randomize the research participants to experimental or control conditions and introduce experimental participants to the computer application.

No personal information will be gathered on the computer. However, user profiles and how they used the system will be gathered in a download file to be collected at the end of the day on a computer disk. The Co-Investigator may be asked to collect the download file occasionally.

Co-Investigators will be acknowledged on any publications or presentations resulting from the efficacy test. They will also be invited to review publications, and they will be included as a co-author on those publications they review.

# Appendix E: Presentation to Inform Potential Co-Investigators





Primary study population:
enlisted women in the Army, Navy, and ir Force
ds Assessment
rvention Design & Development cacy Study
e of Co-Investigators

Secondary Analysis
95 DoD Survey of Health Related Behaviors
nong Military Personnel
camined STDs, pregnancy, Pap test screening,
lipfulness of military health education
us Groups
Navy and 2 Army Medical Centers
arried and single enlisted women, military
lysicians, military nurse practitioners &
lysician assistants.

Yeys
litary clinicians & chiefs of service

vidualized, context-sensitive health cation program for enlisted women that: ovides assessment, diagnostic information, and ucation.

rgets environmental situations and conditions chaviors, related attitudes, & knowledge). cilitates access and utilization of necessary resources preventive care.
es experienced peers as role models. odels positive health behavior and skills.

enter vention: Design & Comment

cerall goal
promote military readiness by enhancing disted women's self-care and care-seeking chavior for their reproductive health.
goals
increase understanding of reproductive health,
increase enlisted women's ability to be assertive dresponsible for their health and well-being increase communication skills, and increase appropriate reproductive health care eking.

# "Appendix E: Presentation to Inform Potential Co-Investigators

